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# Consumers' Research Bulletin



**April 1952**

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# Consumers' Research Bulletin

## OFF THE EDITOR'S CHEST

**C**ONSUMERS' sales resistance has been the subject of much discussion in advertising and business circles for the past few months. It appears that sales resistance, which has been taught in consumer education courses and widely advocated as a protective measure against misleading sales tactics and high-pressure selling, has reached such a high level that it has caused a severe recession in certain trades.

Textiles have been in the doldrums for some time and the need for reducing prices in order to tempt consumers to buy has been so evident that large textile mills in New England have had under discussion a number of cost-cutting steps to be taken by the Textile Workers' Union so that northern mills can keep operating. The heavily-unionized northern full-fashioned hosiery mills found themselves so overproduced with relation to market demands that in order to prevent a complete shutdown of operations, the hosiery union agreed to accept a 20 percent cut in pay. Just what this will mean with respect to price reductions in over-the-counter sales of hosiery to consumers is not known at this time.

On the other hand, the steel workers are expected to force through a rise in wages which will result in a rise in prices of steel. This price increase would immediately affect a large number of consumer appliances were it not for the fact that dealers are well stocked, and it has been noted that even the manufacturers of automobiles are finding that cars are not moving out of showrooms as fast as desired. The slow sales of consumers' durable goods have failed to bring about lower prices for steel because at the present time the chief demand for steel comes from the armament program where an increase in costs merely increases the national budget deficit or the amount of taxes to be levied to pay for the program, and public opinion is not strongly directed to the problem of keeping prices down because the ultimate consumer is not aware of the direct — and very substantial — effect of military expenditures on his pocketbook.

Whether consumers will continue to follow their current tendency to make purchases only when they secure what they consider good values for their money remains to be seen. It goes without saying that there is as yet no disposition in any important quarter to make determined efforts to reduce the prices charged consumers for goods. Rather, recent business conferences

(Continued on page 16)



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Consumers' Research functions to provide unbiased information on goods bought by ultimate consumers. For their benefit (not for business or industry) and solely with the funds they provide, CR carries on tests and research on a wide variety of goods, materials, and appliances, and publishes the findings in CR Bulletin. Consumers' Research is a non-profit institution, and is organized and operates as a scientific, technical, and educational organization.

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\*\*\* For a brief cumulative index of the 1952 BULLETIN preceding this issue, see page 26.

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## The Consumers' Observation Post

FRESH ORANGE JUICE for the baby should be squeezed or reamed, advise two Maryland physicians. Use of either a hand reamer or an electric orange juicer (reamer) was recommended by Dr. C. L. Joslin and Dr. J. E. Bradley of the Department of Pediatrics, University of Maryland, Baltimore. The doctors found that orange juice extracted by either of these two methods contained less peel oil than juice obtained by using another type of mechanical extractor. It was their observation that the peel oil was the cause of skin rash, regurgitation, and intestinal disturbances attributed to orange juice that occur in some cases when it is given to babies at an early age. In the investigators' experiments, they started babies at the beginning of the third week on a fourth of an ounce diluted with an equal amount of water.

\* \* \*

SUNTAN DEVOTEES may well give heed to a warning from Dr. Konrad J. K. Buettner of U. S. Air Force. Dr. Buettner reports experiments that show fair-skinned individuals had the best chance of surviving an atomic explosion. It was found that pale skin would reflect up to 40 percent of the heat to which it was exposed, whereas dark-skinned persons may absorb all but 10 percent of the heat given off by a sudden blast.

\* \* \*

THOSE STIFF PETTICOATS that are so fashionable at the moment may go limp in cleaning or washing and so fail to produce the desired effect, according to Ruth E. Pearce of the Delaware Agricultural Extension Service. She lists the fabrics that go limp in cleaning as: cotton tarlatan, cambric, crinoline, buckram, and crinolast with a non-permanent finish. It is necessary to instruct cleaners to use a stiffening agent on such fabrics. One new laminated crinoline can be dry cleaned, but loses its laminating material when it is washed. Stiffened rayon net can be dry cleaned, but pressing at home is a problem because the iron at rayon setting causes the stiffening resin to become sticky in the case of certain finishes. Rayon net stiffened with starch and gum arabic loses some stiffness in dry cleaning, all of it in washing. The upkeep of such garments is obviously something of a problem.

\* \* \*

CIGARETTE ADVERTISING comes in for some heavy criticism by the trade journal Advertising Age, which recently pointed out that much of it is "silly, vicious, too competitive, and a menace to the entire structure of advertising." One of the chief difficulties, according to the magazine, is that "nice, clean" copy doesn't sell cigarettes. Since, the magazine points out, most of the current brands are generally indistinguishable from each other once they are removed from their packages, it becomes necessary for their respective sales managers to endow their particular product with "more extravagant and unbelievable" virtues than the other fellow's brand in order to make a sales impression.

\* \* \*

THE USE OF PEANUTS by manufacturers is falling off due to high prices and low quality, according to a food company executive. William Kuehn, president of Good Foods, Inc., speaking at a government Peanut Conference late last year, held government inspection techniques and standards responsible for "lower standards, more defective peanuts, the purchase of more twigs and stones and inedible products." He also pointed out that "the subsidy and support program which guarantees that the government will purchase peanuts at what may be considered an unusually high price, whether or not they are purchased by commercial users, has resulted in not only higher prices but a lower quality of product." This seems to reflect the same economic effect as with the potato subsidy and resulting low quality of potatoes found in the grocery store that was the favorite topic for editorial wrath not so long ago. As an old peanut

butter fancier, we can testify to the fact that the current product made with hydrogenated oil lacks the full-bodied flavor of freshly ground peanuts in which the oil was not modified. Could it be that others find the "improved" products not so pleasing either?

\* \* \*

THE NEW ANTIBIOTICS serve a useful function, but it is coming to be realized that they may seriously interfere with the human body's own development of immunity. At a recent scientific conference in the field held in New York City, it was emphasized that the new drugs, such as penicillin, streptomycin, chloromycetin, aureomycin, and terramycin, do not "kill" disease germs; they merely hold an infection in check while there is a significantly high level of antibiotic present in the blood stream. There may be a relapse when the use of the drug is discontinued because the normal development of antibodies to combat the germs has been checked as well. It was brought out at the conference that there is some evidence that chloromycetin could be prescribed in intermittent doses in order to give the natural immunity processes of the body an opportunity to build up the body's defenses against the infection.

\* \* \*

TOOTHPASTE ADVERTISING which stresses "confectionery" tooth preparations has been held responsible by Dean Harry Lyons of the School of Dentistry of the Virginia Medical College for improper care of the teeth. At a professional meeting in New York late last year, Dean Lyons pointed out that proper brushing is the major factor in cleaning the teeth and that a 50-50 mixture of salt and soda is as good as any dentifrice on the market. Prof. Lyon's observations will be a major source of irritation to those companies reported to be working feverishly to get out new dentifrices containing chlorophyll touted as "nature's odor-destroying" ingredient. At present the Council on Dental Therapeutics of the American Dental Association has not classified chlorophyll derivatives as making important or significant contributions to dental care.

\* \* \*

POULTRY that has been treated by the insertion of a pellet of diethylstilbestrol, a synthetic female hormone, in the neck must now be properly labeled when marketed to consumers. Failure to include such labeling will be considered misbranding under the Federal Food, Drug, and Cosmetic Act, according to an announcement in a North Dakota Agricultural Experiment Station Bulletin. The object of the hormone treatment is to make tough old roosters tender. Male consumers of such birds have been known to express curiosity as to the possible effects on human beings, particularly in view of the fact that Food and Drug inspectors have made a number of seizures of birds found to contain excessive amounts of the drug.

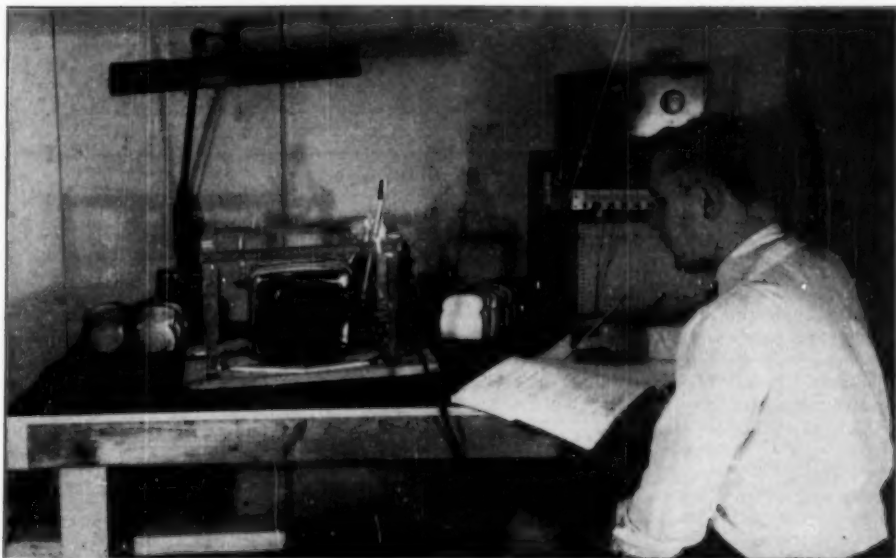
\* \* \*

AN INCREASE IN HAND ECZEMAS among housewives in the past few years has been noted by Dr. Louis Schwartz. Speaking before a professional meeting late last year, Dr. Schwartz suggested that use of more powerful cleansing and washing compounds may be responsible for this condition, for the better the detergent the more likely it is to damage the skin. Since the cleanser is not selective in its action, it removes not only extraneous soil but the natural protective acid mantle of the skin as well. The skin then tends to dry and crack and is more easily affected by irritants. Where contact of the skin with powerful detergents cannot be avoided, Dr. Schwartz suggests the use of rubber gloves, and an emollient lotion containing lanolin or other natural fat applied after the work is done.

\* \* \*

THE HIGH COST OF LIVING has been actively aided and abetted by the U. S. Department of Agriculture this past year. In fiscal year 1951, for example, according to Time magazine, the Commodity Credit Corp. lost \$346 million of taxpayers' hard earned money supporting farm prices. Of the grand total, \$111 million were spent in making dairy products more expensive to consumers, \$76 million on dried eggs, and \$63 million on potatoes.

(The continuation of this section is on page 29)



*Photograph showing the method used for measuring the temperatures of the various parts of the toasters with thermocouples and a recording millivoltmeter, during operation. The temperatures at 7 different points were registered continuously during this test.*

## Automatic Toasters

OF THE MANY QUALITIES of an automatic toaster which CR evaluates in its test program, there are two that are of primary importance. The first, dependable operation, is most certainly to be expected by the user in any expensive electrical appliance. If subscriber correspondence is an indication, however, very few, if any, of the automatic toasters manufactured in the past few years perform as well in this respect as did some automatic toasters made about 15 years ago. The results of the 500-cycle endurance run just completed by CR would seem to bear out subscribers' experience, for of the 13 toasters tested, 7 failed to complete the endurance run and 2 others, while completing the test, failed to function properly several times during the 500 operations.

Second, it would seem to be a reasonable expectation, particularly under controlled test conditions, that when adjusted for a particular kind of toast, that is light, medium, or dark, the toaster would make that kind of toast, not only with the first two slices toasted but with each succeeding pair of slices. General Electric's advertising, for instance, indicates that, having made your choice, all you have to do is "Just set the knob of this

General Electric. You'll have each slice the way you like it — whether it's the first slice or the twenty-first!" Likewise, in Camfield advertising, "perfect toast every time without preheating, toasts slice after slice exactly alike." Manufacturers, in attempting to meet the requirement set by their advertising departments, utilize several different methods for time and temperature control. The method most commonly used utilizes a heat-sensitive bimetallic strip (thermostat) which determines the length of time during which the toasting element stays on. Another method is completely dependent upon the time determined by the clock mechanism, after the first two slices have been toasted. Still another method employs a thermostat control placed in the toast chamber near one of the slices of toast; this thermostat acts to turn off the current when the toasted surface of the bread reaches a certain preselected temperature, which determines its "color." The fact that none of the mechanisms of the toasters included in this report would meet the requirement of uniform toasting at light, medium, and dark settings is shown in the table under the column headed "Uniformity of Successive Pairs of Slices." Only

two toasters, the *Knapp-Monarch* and the *Toastmaster*, gave fairly good performance in this respect. It should be noted that the *Camfield* did not toast "slice after slice exactly alike." The foregoing is not meant to single out *Camfield* or *GE* particularly, whose claims were merely taken as representative examples, but to show the prospective buyer that the advertising and sales claims may fall far short of furnishing dependable information to the purchaser.

Several characteristics were evaluated by CR during the engineering examination of the toasters. Stability or tendency to tip over was judged in two ways: (1) by the "feel" of the toaster when carried by the handles, and (2) by placing the toaster on an incline and determining the angle at which it tipped over. The *Sunbeam* was the only unit considered somewhat deficient in the first respect (because of the low position of the handles). All of the toasters were constructed to toast two slices of bread at one time, although it was possible to make a single slice of toast in any one of them. With the *Proctor*, *Sunbeam*, and *Westinghouse*, the single slice is placed in a particular slot marked for that purpose.

Two of the toasters, the *Knapp-Monarch* and the *General Electric*, provided a "keep-warm" feature. The *Proctor*, however, was the only toaster in the test in which toast could be reinserted for reheating without being subjected to additional toasting. Each toaster, except the *Sunbeam*, was

so constructed that it was possible to raise and inspect the bread while it is being toasted.

Many persons prefer toast which is made quickly so that the bread remains soft on the inside, while others prefer crunchy, or crisp, toast which has been made more slowly, similar to "Melba" toast. In choosing a toaster, it is well to note the speed of toasting indicated in the chart so as to be sure of obtaining a toaster which will tend to produce the kind of toast your family prefers.

### Toasting Tests

For the toasting tests, the toast-control was first set at the "light" end of the scale, and with the toaster initially at room temperature, 10 slices (5 successive pairs) of toast were made, followed by 2 single slices. The time required to toast each pair of slices and each single slice was recorded, as were the current and voltage at which the toaster operated. This procedure was repeated with the toaster set at "medium," and again at "dark." The bread used for this test was 24-hour-old *Wonder Bread* (a brand of The Continental Baking Co.) selected for uniformity from a single batch at the bakery. Photographs of the toasted bread were then taken under carefully controlled conditions. Photometric measurements were then made of a particular area of the photographs and the figures thus obtained used as a measure of the extent of the toasting. This method, which enables one to assign a numerical value which is indicative of the degree of



*Toastmaster 1B14*



*Sunbeam T-20*



*Proctor 1482A*



*Westinghouse TO-501*



*Handyhot 5900*



*Kenmore 344-6132*



Wards 05VCG2292A



Camfield C-3



General Electric 129T81



General Mills GM5A



Knapp-Monarch 22-501A



Dormeyer EA-6500

toasting of each side of each toasted slice, simplifies the test procedure, and gives an accurate indication of the uniformity of toasting of successive pairs of slices prepared by each toaster without introducing the element of personal judgment.

The temperatures of the various control knobs and handles likely to be touched by the user were measured continuously while toast was being made during a half-hour run. A maximum temperature of 150°F is allowed on plastic handles and knobs which are used for controlling the toasting operation. The temperature of those parts of the metal shell which are close to the controls and therefore likely to be touched, even though accidentally, should not exceed 130°. Counter-top temperatures beneath the toaster should not exceed 175°F, particularly if the surface has a painted or varnished finish. Toasters in which temperatures were attained considerably in excess of the 130° and 150° values were penalized in determining the final ratings.

After performance as to toasting had been determined, each toaster was subjected to a 500-cycle endurance test with the toast control set at the "medium" setting. This test is considered quite severe since it is designed to accelerate malfunctioning or breakdown of parts. Failure during the run is not therefore considered to warrant a C rating, but does limit the rating of any particular

toaster which fails to complete the run to *B. Intermediate*.

The usual measurements to determine insulation resistance and current leakage were made with each

toaster, and all were found acceptable in these respects. All the toasters, except one sample of the *General Electric*, passed the voltage breakdown test.

Many complaints have been received from subscribers on the poor performance of the automatic toasters they have purchased. In general, a lack of uniformity in operation among toasters of the same make is indicated. At the price now asked for automatic toasters, the consumer has the right to be sure of what he is getting and should demand a demonstration in the store, of the toaster to be bought, before purchase. At least three slices of toast should be made at each setting, Light, Medium, and Dark, if one wishes to be reasonably certain of getting a satisfactory toaster. Asking for



Universal EA-2825

the privilege of full refund after a trial of the toaster at home, if it should perform badly or not give uniform results, would be a still more satisfactory way of assuring good performance.

While there were no non-automatic ("flip-flop") toasters included in this study (simply because subscribers have not indicated a sufficient interest in them), the following suggestions regarding points of evaluation of "flip-flop" toasters are included for the use of prospective purchasers.

1. Make sure the doors do not touch the table when they are opened.

2. Check the space available for the bread slices — some toasters will not accommodate large slices of bread.

3. Construction should be sturdy — some toasters are "loft assembled" and of very poor and

flimsy construction, incapable of being repaired if trouble develops.

4. Toaster should turn the toast automatically when the sides are lowered.

5. The legs should be smooth — punched metal legs often have sharp edges which will scratch the finish of a varnished or other valued surface.

6. The finish of the toaster should be of a kind to resist rusting — some use a polished steel which will rust quickly.

In the listings that follow, rated watts input is followed in parentheses by watts input as measured. All toasters tested were of the "pop-up" kind having chrome-plate finish; all were guaranteed against mechanical defects for one year. All the toasters were listed by the Underwriters' Labora-

Comparison Table Showing Some of the More Important Characteristics of the Automatic Toasters

Toaster	Maximum Size of Bread Slice	Minimum Height of Slice Accommodated	Evenness of Browning of Toast <sup>1</sup>	Relative Speed of Toasting for Medium Toast	Uniformity of Successive Pairs of Slices <sup>2</sup>			Ease of Cleaning <sup>3</sup>	Consumption for 10 Slices of Medium Toast, Watt-hours
					Li.	Med.	Di.		
Camfield C-3	5.2 x 4.5	3.5	G	Slow	P	P	P	G	118
Dormeyer EA-6500	5.1 x 4.5	3.4	G	Slow	P	P	G	F	140
General Electric 129T81	5.2 x 4.4	3.9	F	Average	P	F	G	G	112
General Mills GM5A	5.2 x 4.6	2.8	G	Slow	P	P	F	G	135
Handyhot 5900	5.1 x 4.0	3.4	G	Slow	P	G	G	G	107
Kenmore 344-6332	5.2 x 4.6	3.0	G	Slow	P	F	F	G	119
Knapp-Monarch 22-501A	5.0 x 4.4	3.4	F	Fast	F	F	G	F	77
Proctor 1482A	5.1 x 4.1	3.1	F	Average	P	P	G	G	103
Sunbeam T-20	5.2 x 5.0	3.3	F	Average	P	F	G	G	107
Toastmaster 1B14	5.3 x 4.5	2.9	G	Slow	G	F	G	G	135
Universal EA-2825	5.1 x 4.5	3.4	F	1	1	1	G	F	1
Wards 05VCG2292A	5.2 x 4.5	3.3	G	Average	P	P	2	G	107
Westinghouse TO-501	5.2 x 4.6	2.5	F	Fast	P	F	F	G	107

<sup>1</sup>See remarks in listing of Universal EA-2825.

<sup>2</sup>G — good; F — fair; P — poor.

<sup>3</sup>Too dark to judge (see listing).

tories. Except as noted, all toasters passed the 900-volt proof-voltage test, and had leakage currents less than 0.2 milliamperes and did not exceed CR's permissible temperature limits at handles, knobs, or other parts touched during operation, and at table top beneath toaster during 15 minutes of operation.

### A. Recommended

**Toastmaster, Model 1B14** (Toastmaster Products Div., McGraw Electric Co., Elgin, Ill.) \$23. For a-c or d-c operation. Rated 10.5 amp. at 110-120 volts (1220 watts). Weight, 5.2 lb. Over-all length, 11.7 in.; width, 6 in.; height, 7.4 in. Toast slots: length, 5.2 in.; depth, 5.0 in. Silent operation. Crumb receiver easily opened and readily cleaned. Toasting was uniform over surface, and degree of toasting was fairly consistent from cycle to cycle at all settings. Speed of toasting, somewhat slower than average. Comparative operating cost, higher than average. Completed 500-cycle endurance run without difficulty. 2

### B. Intermediate (High)

**Proctor, Model 1482A** (Proctor Electric Co., Philadelphia) \$22.50. For a-c operation only. Watts input, 1000 (1025). Weight, 4.8 lb. Over-all length, 11.1 in.; width, 6.6 in.; height, 7.4 in. Toast slots: length, 5.1 in.; depth, 4.6 in. Silent operation. Crumb tray easily removed and readily cleaned. Toasting was fairly uniform but consistently so from one pair to the next only at dark setting. Toasting speed and relative operating cost, about average. Temperatures of some plastic parts near handles, excessive, 190°. Completed 500-cycle endurance run without difficulty. 2

**Westinghouse, Cat. No. T0-501** (Westinghouse Electric Corp., Mansfield, Ohio) \$22.95. For a-c operation only. Watts input, 1320 (1320). Weight, 5.2 lb. Over-all length, 11.2 in.; width, 6.9 in.; height, 7.2 in. Toast slots: length, 5.1 in.; depth, 5.1 in. Had usual pop-up feature and, in addition, provision for raising toasted bread an additional inch if needed, for instance, when toasting very small slices or rolls. Slight continuous tapping noise during operation, not considered objectionable. Temperatures of plastic shields near fixed handle and movable handle were somewhat above CR's limit. Crumb receiver easily opened and readily cleaned. Toasting was fairly uniform over surface, and degree of browning was fairly even from one pair to next at medium and dark settings. Speed of toasting, faster than average. Relative operating cost, average. Completed 500-cycle endurance run without difficulty. 2

### B. Intermediate

**Handyhot, Cat. No. 5900** (Chicago Electric Mfg. Co., Chicago) \$16.50. For a-c operation only. Watts input, 800 (795). Weight, 3.6 lb. 10.0 in. x 5.9 in. x 7.0 in. Toast slots, 5.1 in. x 4.5 in. deep. Clock makes ticking noise when operating. Temperature of wood handle was excessive. Crumb retainer easily opened and readily cleaned. Push-down handle struck one control knob when moved into down position. Toasting was uniform and consistently browned from one pair to next at medium and dark settings, but became increasingly

darker at light setting. Slow in toasting; operating cost, average. Completed endurance run but with difficulty. 1

**Kenmore, Model 344-6332** (Sears-Roebuck's Cat. No. 34-6332) \$19.95, plus postage. For a-c operation only. Watts input, 1200 (1180). Weight, 6.8 lb. 12.1 in. x 6.3 in. x 7.8 in. Toast slots, 5.1 in. x 5.1 in. deep. Silent during toasting cycle. Crumb receiver easily opened and readily cleaned. Toasting was uniform and fairly consistent from one pair to next at medium and dark settings. Speed of toasting, slower than average. Operating cost, about average. Temperature of plastic near fixed handle, excessive, 165°. Did not complete endurance run. 1

**Wards, Model 05VCG2292A** (Montgomery Ward's Cat. No. 86-2292L) \$18.95, plus postage. For a-c or d-c operation. Rated at 10 amp., 110 volts (1150 watts). Weight, 4.8 lb. 11.9 in. x 5.9 in. x 6.7 in. Toast slots, 5.1 in. x 5.0 in. deep. Silent operation, except for occasional clicking sound. Spring clip on crumb retainer considered poor construction, but retainer was easily cleaned. Toasting was uniform over surface of slice, but degree of browning varied (toast became lighter) from one pair to next at low and medium settings; some slices burst into flames, at high setting. Speed of toasting, average. Operating cost, average. Temperature of plastic near movable handle, somewhat excessive, 155°. Did not complete 500-cycle endurance run; starting mechanism at times failed to operate properly. Note failure of same part on *Camfield C-3*. Similar to *Camfield C-3*. 1

**Camfield, Model C-3** (Camfield Mfg. Co., Grand Haven, Mich.) \$23.95. For a-c or d-c operation. Rated at 10 amp., 110 volts (1175 watts). Weight, 4.6 lb. 11.7 in. x 5.9 in. x 6.7 in. Toast slots, 5.2 in. x 5.0 in. deep. Silent operation except for occasional clicking sound. Temperatures of handles and controls not measured because unit would not function, but temperatures attained with the *Wards* should be applicable since units were quite similar. Crumbs easily removed from bottom of toaster. Toasting was uniform, but amount of toasting varied from one pair to the next at all settings tested. Speed of toasting, slower than average. Operating cost, average. Starting mechanism failed to operate properly during temperature measurements, and endurance run was not made. Similar to *Wards* except that it could be controlled from either end. 2

**General Electric, Cat. No. 129T81** (General Electric Co., Bridgeport 2, Conn.) \$22.95. For a-c or d-c operation. Watts input, 1150 (1220). Weight, 4.7 lb. 12.0 in. x 6.3 in. x 7.3 in. Toast slots, 5.1 in. x 4.9 in. deep. Had "keep warm" feature. Silent operation. Crumb tray readily removed and easily cleaned. Toasting was fairly uniform over surface of slice, and successive slices of toast were consistently browned at medium and dark settings. At the light setting, first pair was lightly toasted but following pairs did not brown perceptibly. Speed of toasting and operating cost were about average. Completed endurance run with only minor difficulties. One of two samples tested failed proof-voltage test; this model would otherwise have been worthy of an *A-Recommended* rating. 2

**General Mills, Cat. No. GM5A, No. CE** (General Mills, Inc., Minneapolis) \$22.95. For a-c or d-c operation. Watts input, 1200 (1205). Weight, 5.2 lb. 11.1 in. x 6.4 in. x 7.7 in. Toast slots, 5.2 in. x 5.1 in. deep. Silent

operation. Crumb collector easily opened and readily cleaned. Toasting was uniform over surface of slice, but successive pairs of slices were progressively lighter at all 3 settings. Speed of toasting, slower than average. Cost of operation, higher than average. Did not complete endurance run. 2

**Knapp-Monarch, Cat. No. 22-501A** (Knapp-Monarch Co., St. Louis) \$21.95. For a-c operation only. Watts input, 1060 (1055). Weight, 4.6 lb. 11.0 in. x 6.3 in. x 6.9 in. Toast slots, 5 in. x 4.9 in. deep. Had "keep warm" feature wherein toast remains in toasting chamber after toasting, if desired. Silent operation. One of the coolest toasters tested. Crumb tray was difficult to open, but interior was easily cleaned. Toasting was uniform and comparatively consistent from one pair to next at light, medium, and dark settings. Along with *Westinghouse*, the fastest toaster included in the test. Considered the most efficient in use of electrical energy. Was removed from endurance run at 29th cycle because mechanism stuck, and it was necessary to cut off current manually several times. Would otherwise have received an *A-Recommended* rating. 2

**Sunbeam, Model T-20** (Sunbeam Corp., Chicago) \$26.50. For a-c operation only. Watts input, 1275 (1265). Weight, 5.8 lb. Over-all length, 11.5 in.; width, 7.1 in.; height, 7.5 in. Toast slots: length, 5.1 in.; depth, 5.5 in. Carrying handles were low on shell and therefore had to be clasped when the toaster was carried. Toaster was so constructed that weight of bread slice caused the carrier to move downward. For this reason there was no means for inspecting the toast during the toasting cycle (considered a minor disadvantage). Silent operation. Crumb retainer easily opened and readily cleaned. Toasting was fairly even over surface of slice and fairly consistent from cycle to cycle at medium and

dark settings, but light toast was too dark. Speed of toasting, average. Operating cost per slice of toast, average. Completed 500-cycle endurance run without difficulty. First two samples obtained for test were not in operating condition and were replaced by dealer. 3

### C. Not Recommended

**Dormeyer, Model EA-6500** (Dormeyer Corp., Chicago) \$22.95. For a-c operation only. Watts input, 1150 (1130). Weight, 5.0 lb. 10.2 in. x 5.6 in. x 7.8 in. Toast slots, 5 in. x 5 in. deep. Quiet operation. Temperature of fixed handle, 180°F, considered excessive. Crumb cleanout door difficult to open and did not retain crumbs. Toasting was uniform, but successive slices of toast were toasted consistently at dark setting only. Was one of the two slowest-toasting toasters in test, and operating cost was highest. Did not complete 500-cycle endurance run; on several occasions during endurance test, could not be started unless first cooled to room temperature, and pop-up mechanism did not function correctly. Identical with *Universal EA-2825* in construction. 2

**Universal, Model EA-2825** (Landers, Frary & Clark, New Britain, Conn.) \$22.95. For a-c operation only. Watts input, 1150 (1100). Weight, 5.0 lb. 10.0 in. x 5.6 in. x 7.8 in. Toast slots, 5.0 in. x 5.0 in. deep. Quiet operation. Temperature of fixed handle, 183°F, considered excessive. Crumb cleanout door inconvenient to use and did not retain crumbs. Did not toast at light setting, and toast was much too dark at medium setting. Comparative toasting speed and operating cost could not, therefore, be calculated for this toaster. Did not complete 500-cycle endurance run (see comments in *Dormeyer*). Identical with *Dormeyer EA-6500* in construction and appearance. 2

## Wanted

### Specific Reports of Subscribers' Experiences with 1951 and 1952 Cars

AS the new 1952 cars in most cases differ only in minor details from the corresponding 1951 models, reports from subscribers on their experiences (favorable and unfavorable) with the 1951 model cars will be of considerable help to CR in completing the study of the current cars for CONSUMERS' RESEARCH BULLETIN. Some subscribers will also have purchased 1952 cars, and reports on these after they have covered a reasonable number of miles (say 1500 to 2000) will also be most welcome. Reports should include such items as make, year, and model of car, date purchased, and price paid. If a car was traded in on the purchase of the new car, the car traded in should be fully identified as to date and model, and information concerning condition, mileage, and trade-in allowance should be given. On the new model car, we shall be glad

to have comments included relative to any unusual defects and the handling of their correction promptly and satisfactorily, or otherwise, by the dealer; riding quality; road visibility; average miles per gallon of gasoline for driving around town and for trips (country driving); oil consumption, if significant. Comments on the automatic drive, including cost of the repairs, if repairs or adjustments have been necessary, will be welcome, and the length of time required to make the repairs; and we should like to know of any instances where the automatic drive may have seemed to increase hazard in driving either on slippery roads or in passing trucks and other cars. Finally, the owner's opinion of the car by comparison with other cars of recent manufacture he has owned (name, model, and year should be given).

## Men's Hats

THERE IS a story which may or may not be humorous, depending on your point of view, which tells about the difference between men and women when it comes to buying a hat. The husband, it is said, does not want a hat that would be in style merely for the rest of the season, but one that he can wear for several seasons. The wife, on the other hand, does not want a hat that will be in style for more than one season.

Men's hatters know that men very commonly send their hats to the manufacturer or to a professional hat cleaner for cleaning and blocking. It would seem that once a man has found a hat he likes, he will have it cleaned and blocked several times rather than buy a new hat to replace one he has grown to like as an old friend.

Factory renovation costs about \$5, which includes cleaning, blocking, and replacing the band. Since men's hats are now priced from about \$10 up, renovation can save the consumer considerable money. Cleaning and blocking by a local cleaner will be considerably cheaper and may be entirely satisfactory if the shop does not use an alkaline cleaner which will damage the felt and tend to make it stiff and "boardy."

Despite men's inclination to cherish their old hats, fashions in men's hats do change. At the present time a hat that has a narrower brim and a smaller shape than the hats of a few years ago are the fashion. Men's wear dealers claim that the more natural silhouette now fashionable in men's clothing requires the smaller hat which would have looked out of place if worn with the broad, padded shoulders found in men's suits some three or four years ago.

While the importance of narrower brims has overshadowed other hat news, there has been a definite trend toward the lightweight felts, which are gaining in year-round acceptance. The John B. Stetson Company, for example, has found its most popular hat in the warmer months is one weighing about 3½ ounces fully trimmed, and in the cooler months one weighing about 4½ ounces. One hat maker says that a man who has become accustomed to a lightweight hat finds a heavy one uncomfortable. Dress hats, however, are heavy hats, as are hats which are purchased for wear in hot humid climates. In Texas and Louisiana, for example, there is a preference in many cases for the "Western hat" which is one of heavy weight.

The most popular color in men's hats is gray, although in the spring of 1952, browns, tans, and soft greens in what is called a willow shade are

being shown. Many men will still want to have at least one gray hat, and partly for that reason CR chose all the hats purchased for the current test in a gray color. CR understands that color can make considerable difference in the wear resistance of a hat.

CR purchased samples of 15 different brands of felt hats in popular styles and shades of gray and subjected the samples to a series of tests in order to compare the wearing qualities and serviceability of the various makes. The folding endurance of the felt was tested in a special testing device, developed by CR, which bent the felt back and forth through a total angle of about 270 degrees. The endurance test was conducted on five or more samples cut from each hat. These findings indicated that the flexing-wear resistance of the present group of hats is far below that of the ones tested in 1949.

Fastness of the dye to water was tested by immersing samples in distilled water for 10 minutes, then placing them between white blotters and drying them with an electric iron (to prevent migration of the small amounts of dye too far into the blotter). All samples were substantially colorfast.

In the light-fading test, samples from all hats were subjected to 40 hours' exposure to a carbon arc lamp in the Fade-O-meter (equivalent to about 54 hours in strong midday sunlight in June at the latitude of Washington, D. C.). The exposed samples were compared with unexposed samples by daylight. None of the samples faded to an objectionable color; two, *Champ* and *Portis*, appeared to be more pink; the *Adam* seemed more gray than before the test; the *Disney* more blue; the *Stetson* more green; the *Brent*, *Citation*, *Dobbs*, *Knox*, and *Resistol* more tan; the other five samples did not change noticeably in hue. However, in all cases the changes in hue were only slight and not displeasing to the eye. According to Munsell color chips, all samples showed fading approximately one gradation lighter than the original color.

Resistance to absorption of water was simulated by dropping distilled water on the outer surfaces of samples cut from the hats and measuring the diameter of the water spot at the end of a half-hour period. Felt samples before and after being dry cleaned commercially were included in this test. Dry cleaning increased the water resistance of the following hats: *Disney*, *Dunlap*, and *Stetson*; but decreased water resistance for *Dobbs*, *Pilgrim*, and *Resistol*. Dry cleaning was found to produce nap on only two samples, *Adam* and *Brent*, but it did

reduce the luster of all hats. All felts were somewhat thicker after dry cleaning, except the *Dobbs*, which retained its original thickness.

The average thickness of the felts in the hats chosen for this 1952 test was less than that of the 1949 samples. As might be expected, the hats just tested were also more flexible than the hats in the 1949 test group. The hats tested in the 1952 group showed less resistance to soiling than the 1949 samples. In 1949, only five samples allowed oil in the oil-graphite soiling medium to spread in the felt, while in the current tests 12 samples showed such migration; indeed, in three hats, of thinner felt than average, the oil came through on the back of the samples.

Since hats are discarded because of wearing through somewhere in the crease, or because of loss of shape or presentable appearance through wetting, soiling, or dry cleaning, the results of these tests were considered equally in the final ranking of hats unless the result of the wear resistance test was relatively poor.

The first figure for weight is that of the hat in ounces; the second (in parentheses) is the calculated weight of the felt in ounces per square yard.

#### A. Recommended

*Lee Water-bloc Black Label* (Frank H. Lee Co., Danbury, Conn.) \$7.50. Soft, medium gray, unlined hat, with bound brim edge. Weight,  $3\frac{1}{4}$  oz. (12.5 oz. per sq. yd.). Wear resistance, fair. Resistance to soiling, good. Resistance to water, good. 1

*Brent Conformatic* (Montgomery Ward's Cat. No. 35-5433) \$8.75, plus postage. Soft, medium gray, fabric-lined hat, with self-bound, rolled-edge brim. Weight of hat,  $4\frac{1}{4}$  oz. (weight of felt, 14.9 oz. per sq. yd.). Wear resistance, fairly good (relatively). Resistance to soiling, good. Resistance to water, good. Not listed in current MW catalog. 2

*Knox Premier* (Knox Hat Co., Inc., 417 Fifth Ave., New York City) \$10. Soft, light gray, fabric-lined hat, with cloth-bound brim edge. Weight,  $4\frac{3}{4}$  oz. (weight of felt, 11.3 oz. per sq. yd.). Wear resistance, relatively good (one of the best three of the hats tested). Resistance to soiling, good. Resistance to water, poor. 2

*Mallory Ten Cravanette* (Mallory Hats, Div. of John B. Stetson Co., Danbury, Conn.) \$10. Medium soft, dark gray, fabric-lined hat, with cloth-bound brim edge. Weight,  $4\frac{1}{2}$  oz. (13.3 oz. per sq. yd.). Wear resistance, relatively good (one of the best three of the hats tested). Resistance to soiling, fairly good. Resistance to water, very good. 2

\* \* \*

The following two hats were considered to be not quite so good as the preceding four.

*Disney* (Disney, Inc., 358 Fifth Ave., N.Y.C.) \$10. Soft, light gray, unlined hat, with bound brim edge. Weight,  $3\frac{1}{4}$  oz. (13.1 oz. per sq. yd.). Wear resistance,

fairly good. Resistance to soiling, fairly good. Resistance to water, poor. 2

*Melton Ten* (Melton Hat Co., Inc., 6 Waverly Pl., N.Y.C.) \$10. Soft, light gray, fabric-lined hat, with bound brim edge. Weight,  $4\frac{1}{2}$  oz. (15.5 oz. per sq. yd.). Wear resistance, fairly good. Resistance to soiling, fairly good. Resistance to water, fair. 2

#### B. Intermediate

*Champ, Diplomat* (LaSalle Hat Co., 4 N. 11 St., Philadelphia) \$7.50. Medium stiff, medium gray, fabric-lined hat, with bound brim edge. Weight,  $4\frac{3}{4}$  oz. (15.2 oz. per sq. yd.). Wear resistance, poor. Resistance to soiling, fairly good. Resistance to water, good. 1

*Pilgrim* (Sears-Roebuck's Cat. No. 33-4446) \$6.95, plus postage. Soft, medium gray, fabric-lined hat, with bound brim edge. Weight,  $4\frac{1}{4}$  oz. (15.7 oz. per sq. yd.). Wear resistance, poor. Resistance to soiling, good. Resistance to water, good. 1

*Dobbs, Fifth Avenue* (Hat Corp. of America, South Norwalk, Conn.) \$10. Soft, light gray, fabric-lined hat with bound brim edge. Weight,  $3\frac{3}{4}$  oz. (10.6 oz. per sq. yd.). Wear resistance, good (one of the best three of the hats tested). Resistance to soiling, poor. Resistance to water, poor. 2

*Dunlap-Superior* (Dunlap Hats, 417 Fifth Ave., N.Y.C.) \$10. Medium soft, medium gray, fabric-lined hat, with bound brim edge. Weight,  $4\frac{1}{2}$  oz. (14.2 oz. per sq. yd.). Wear resistance, fairly good. Resistance to soiling, poor. Resistance to water, poor. 2

*Resistol Pace-Setter* (Byer-Rolnik, Garland, Tex.) \$10. Medium soft, medium gray, fabric-lined hat, with bound brim edge. Weight,  $4\frac{1}{4}$  oz. (12.7 oz. per sq. yd.). Wear resistance, poor. Resistance to soiling, fairly good. Resistance to water, good. 2

*Royal Stetson* (John B. Stetson, Fifth and Montgomery Ave., Philadelphia) \$10. Soft, light gray, fabric-lined hat, with rolled self-bound brim edge. Weight,  $4\frac{3}{4}$  oz. (12.9 oz. per sq. yd.). Wear resistance, fairly good. Resistance to soiling, poor. Resistance to water, poor. 2

#### C. Not Recommended

*Adam, Executive* (Adam Hat Store, Inc., 657 Broadway, N.Y.C.) \$7.50. Medium stiff, medium gray, fabric-lined hat, with bound brim edge. Weight,  $4\frac{3}{4}$  oz. (14.5 oz. per sq. yd.). Wear resistance, poor. Resistance to soiling, fairly good. Resistance to water, poor. 1

*Citation, The Elector* (Citation Hat Co., 2330 W. Cermak, Chicago) \$10. Weight,  $3\frac{1}{2}$  oz. (9.8 oz. per sq. yd.). Poor resistance to wear, soiling, and water. 2

*Portis Crest* (Portis Bros. Hat Co., Div. of Style Industries, Inc., 320 W. Ohio, Chicago) \$8.50. Weight,  $4\frac{3}{4}$  oz. (15.9 oz. per sq. yd.). Poorest of the group in wear resistance. Resistance to soiling, poor. Resistance to water, good. 2

## Washing Machines

**T**HREE automatic, two semiautomatic machines, and one non-automatic machine were included in the test. Semiautomatic washers are the kind in which the flow of wash water must be shut off manually when the correct amount has entered the tub; the control dial is then given a new setting to bring about completion of the cycle. It is not clear why anyone would prefer a semiautomatic machine to a fully automatic one, particularly as prices are much the same as for the fully automatic machines.

The current *Bendix Economat* is considerably different from the machine of the same name reported in CONSUMERS' RESEARCH BULLETIN of September 1949; the valve mechanism in the lid which at that time CR criticized as not being of good design is not present in the new model, and other useful changes have been made, so that the *Bendix Economat* is now judged to warrant an *A-Recommended* rating for those who have an ample supply of hot water.

### Automatic

#### A. Recommended

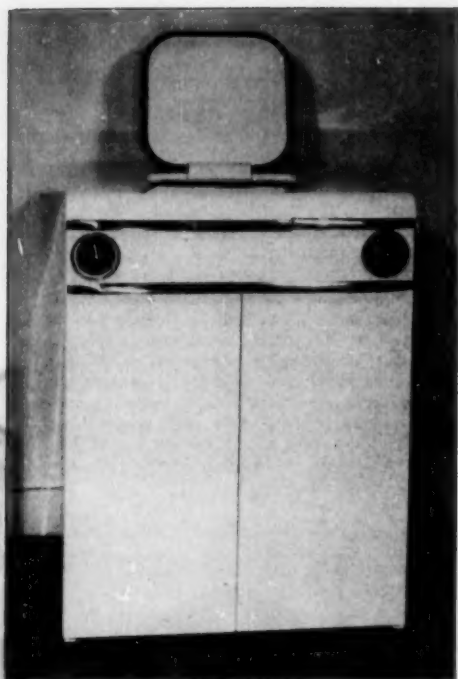
*Bendix Economat, Model H-502* (Bendix Home Appliances, Inc., South Bend 24, Ind.) \$230. Agitator type. Did not require bolting to floor. Cabinet, 35 $\frac{3}{4}$  in. high, 23 $\frac{3}{4}$  in. wide, 25 $\frac{1}{2}$  in. deep. Temperature of wash water adjustable, by setting dial at "Hot" or "Warm." Rinse water is at about 100° regardless of the wash temperature selected. Action could be stopped or started at any part of cycle by advancing the control dial to the desired position. A separate dial permits selection of one or two rinses. The complete cycle consisted of automatic fill, 6 $\frac{1}{2}$  min.; wash, 10 $\frac{1}{2}$  min. (maximum); stop,  $\frac{1}{2}$  min.; drain and extract water from clothes, 4 min.; fill for first rinse, 5 min.;  $\frac{1}{2}$  min. neutral; agitated rinse, 3 min.; drain, 5 $\frac{1}{2}$  min.;  $\frac{1}{2}$  min. neutral; fill for second rinse, 5 $\frac{1}{2}$  min.; agitated rinse, 2 min.; stop,  $\frac{1}{2}$  min.; drain and extract water from clothes, 5 $\frac{1}{2}$  min.; for a total time of 49 min. Maker's capacity rating, 8 lb. Required 32 gal. of hot water and 13.5 gal. of cold water for a cycle with two rinses. When dial was set for one rinse, 24 gal. of hot water and 7.5 gal. of cold water were used. Energy consumption per cycle, 190 watt-hr. (0.7c worth of electricity at 3.5c per kw-hr.). Effectiveness in washing, very good. Effectiveness in drying clothes, fair (water left in clothes was 112% of dry weight of clothes). Instruction book states that after first 2 years machine requires a yearly lubrication check by the dealer. 2

*Norge, Model AW-422* (Norge Div., Borg-Warner Corp., Chicago 54) \$279. Agitator type. Did not require bolting to floor. Cabinet, 40 in. high, 25 $\frac{1}{2}$  in. wide, 27 in. deep. Temperature of wash water adjustable, by switch marked "Hot" and "Warm." Rinse water is at about 100° regardless of setting of switch. Amount of wash water used adjustable for small loads of clothes.

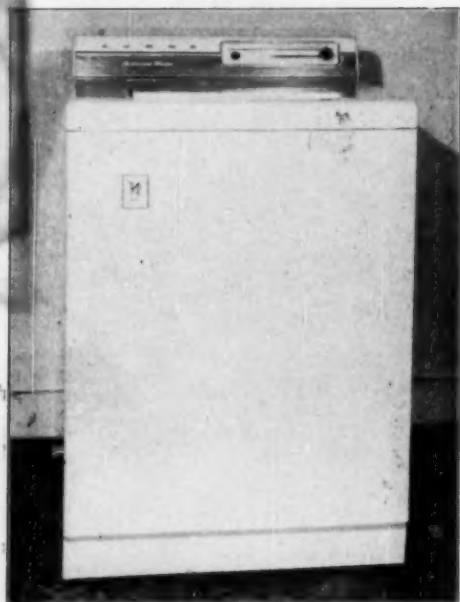
Action could be stopped at any part of time cycle and reset to continue the cycle or if desired repeat, shorten, or omit any part of the cycle. Complete cycle consisted of fill, 4 $\frac{1}{2}$  min.; wash, 10 min.; stop,  $\frac{1}{2}$  min.; spin and drain, 1 min.; spray rinse,  $\frac{1}{2}$  min.; fill, 3 $\frac{1}{2}$  min.; overflow rinse, agitated 5 min.; stop,  $\frac{1}{2}$  min.; spin and drain, 1 min.; spray rinse,  $\frac{1}{2}$  min.; spin dry, 6 min.; for a total time of 33 min. Maker's capacity rating, 8 to 9 lb. Required 23.5 gal. of hot water and 10.4 gal. of cold water for a full load of clothes. Current, 17 amp. at start of spin (for a few seconds only). (Corresponds to some temporary overload on the usual appliance circuit, which is good for 15 amp. maximum.) Energy consumption per cycle, 165 watt-hr. Effectiveness in washing clothes, good. Effectiveness in drying clothes, good (water left in clothes was 69% of dry weight of clothes). Stated to be permanently oiled. 2



*Bendix Economat H-502*



*Blackstone 150*



*Norge AW-422*

## B. Intermediate

*Bendix Gyromatic, Model G-312* (Bendix Home Appliances, Inc.) \$300. Rotating-cylinder type. Did not require bolting to floor. Cabinet, 37½ in. high, 29 in. wide, 24½ in. deep. Temperature of wash water adjusted by push buttons marked "Hot" and "Warm." Soak and rinse water are at about 100° regardless of setting of the two buttons. Amount of water used adjustable for small loads. The soaking period could be omitted by starting the action at the wash position. Complete cycle consisted of "agitated soak," 9 min. (including fill, 3 min.); drain, 1½ min.; spray rinse, ¾ min.; drain, ¾ min.; spin, ¾ min.; stop. (Control must then be manually advanced to "Wash" to continue cycle.) Fill, 3 min.; wash, 11½ min.; drain, 1½ min.; spray rinse, ¾ min.; drain, ¾ min.; spin, 1½ min.; fill, 2½ min.; rinse, 1½ min.; drain, 1½ min.; spin, 1½ min.; fill, 2½ min.; rinse, 1½ min.; drain, 1½ min.; spin, 4½ min.; for a total time of 48½ min. Maker's capacity rating, 9 lb. Required 24.3 gal. of hot water and 15.4 gal. of cold water for a full load. When soak period was omitted, required 18.2 gal. of hot water and 10.6 gal. of cold water. Current, 24 amp. at start of spin (for a few seconds only). (See comment on current, in discussion of *Norge AW-422*. 24 amp. will be a considerable overload on the usual appliance outlet circuit.) Energy consumption per cycle, 275 watt-hr. Washing effectiveness, with or without soak period, only fair. Effectiveness in drying clothes, good (water left in clothes was 70% of dry weight of clothes). Instruction book states yearly lubrication check by dealer is required after first 2 years. 3



*Bendix Gyromatic G-312*

Amount of Water Used by Machines Tested

	Capacity, lb. of clothes	Water Requirements		Hot Water per lb. of clothes approx., gallons
		Cold Water	Hot Water at 140° <sup>1</sup> gallons	
<i>Hotpoint LC3</i>	8	34.7 <sup>2</sup>	14.3	1.8
<i>Bendix Gyromatic G-312</i>	9	10.6	18.2	2.0
<i>Bendix Gyromatic G-312</i> (with soak)	9	15.4	24.3	2.7
<i>Norge AW-422</i>	8-9	10.4	23.5	2.6
<i>Blackstone 150</i>	8	8.5	23.0	2.9
<i>Bendix Economat H-502</i> (1 rinse)	8	7.5	24.0	3.0
<i>Bendix Economat H-502</i> (2 rinses)	8	13.5	32.0	4.0
<i>Prestomat MP</i>	6-8	9.0	15.0 <sup>1</sup>	1.9

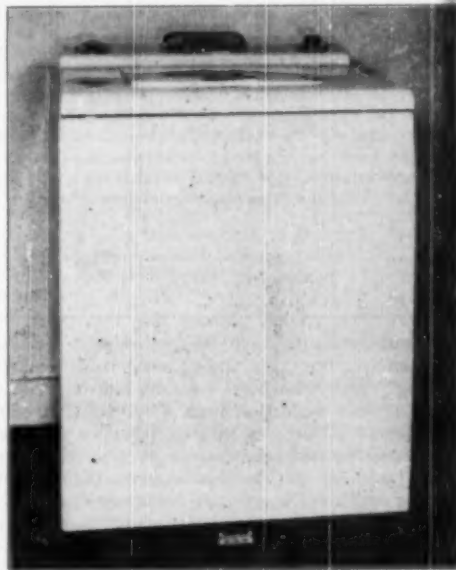
<sup>1</sup>At 130°.<sup>2</sup>Cold water only used for rinses.

## Semiautomatic

### B. Intermediate

*Blackstone, Model 150* (Blackstone Corp., Jamestown, N.Y.) \$390. Agitator type. Did not require bolting to floor. Cabinet, 25 in. wide, 25½ in. deep, 36½ in. high. Temperature of water can be manually adjusted for both washing and rinsing by dial marked "Off," "Cold," "Medium," and "Hot." Tub is filled by advancing a control knob to "fill" position. Time duration of washing period is selected after tub is filled, by advancing control knob again. If a different water temperature is to be used for rinsing than was used for washing, as is normal, temperature control dial must be reset and from then on operation is automatic. Complete cycle consisted of fill (time variable, depending on pressure of water supply) 4 min.; wash, up to 15 min.; drain, 2½ min.; spin, 2½ min.; brake, 2½ min.; fill, 2½ min.; agitator rinse, 2½ min.; drain, 2½ min.; spin dry, 5 min.; brakes 2½ min. before shutting off. Time for complete cycle with 10-min. washing period, not including first filling of tub, 32½ min. Instruction book stated that drain hose should preferably empty to a point below the level of the pump (i.e., to a floor drain) to provide gravity drainage in case of a power failure during any part of cycle in which water valve is open. A serious disadvantage of this machine is that even with hose connected directly to a floor drain, water can enter faster than it will drain out. Thus, if the housewife does not turn off the water when the tub is filled, or if power failure occurs during the rinse period, water could flow over rim of tub, fill collector tank, and spill over the motor and the floor. Maker's capacity rating, 8 lb. Required 23 gal. of hot water and 8.5 gal. of cold water (with rinse water control set at medium) per cycle. Current, 30 amp. at start of spin (very high) — see comment on *Norge AW-422*. Energy consumption per cycle, 220 watt-hr. Washing effectiveness, very good. Effectiveness in drying clothes, good (water left in clothes was

72% of the dry weight of clothes). Lubrication required at several points every 6 months. Anyone in a position to spend \$400 for a washer would, in CR's opinion, be much better off to purchase a fully automatic machine. *Hotpoint, Model LC3* (Hotpoint, Inc., Chicago 44) \$339.95. Agitator type. Did not require bolting to floor. Cabinet, 38½ in. high, 25½ in. wide, 28¼ in. deep. Temperature of water for filling tub is selected by setting control dial to "Hot," "Warm," or "Cold." When

*Hotpoint LC3*

water has reached desired level, washing period is started by manually advancing control knob; from then on operation is automatic. Cold water is used for rinses. Action could be stopped and started at any part of time cycle. Complete cycle consisted of fill,  $4\frac{1}{2}$  min.; wash,  $11\frac{1}{2}$  min. maximum; spin,  $4\frac{1}{2}$  min. with spray rinse during last  $\frac{1}{2}$  min.; overflow rinse, 7 min., including filling and 3 min. agitation; spin dry, 7 min.; for a total time of about 34 min. Water would not overflow on floor if tub were accidentally overfilled, as pump can remove water from drain tub faster than it enters, at normal pressures for incoming water. Maker's capacity rating, 8 lb. Required 14.3 gal. of hot water and 34.7 gal. of cold water for full load. Current, 9 amp. at start of spin. Energy consumption per cycle, 230 watt-hr. Washing effectiveness, good. Effectiveness in drying clothes, good (water left in clothes was 75% of dry weight of clothes). Machine gear case was stated to be permanently lubricated. 3

## Non-Automatic

### C. Not Recommended

*Monitor Prestomat, Model MP* (Monitor Equipment Corp., New York 71) \$200. Cabinet size, 24 in. square, 36 in. high. Machine consists of a rectangular-shaped tub of 14-gal. capacity. Agitation of water and clothes is by a small circular impeller located in side of tub. After the washing is finished, clothes are lifted into dryer which consists of a rubber bag in a pressure tank, dryer lid is closed and locked, water valve opened, and the water pressure on the outside of the bag compresses the bag and its contents, forcing the soapy water from the clothes; the soapy water is returned to the tub. Water valve must then be closed to release the pressure, the dryer lid opened, and half of the contents removed. The remainder of the clothes in the dryer, which are compressed, must be loosened; then the water valve is depressed and turned to the rinse position. While the dryer well is filling with rinse water, the clothes previously removed are returned to the dryer, and the water is shut off when the well is filled. To remove the rinse water and dry the clothes, the operation in which the soapy water was removed from the clothes is repeated. Disadvantages of this method are that there is no agitation of the clothes during the rinse, and the warm or

cold rinse water flows into the tub where it dilutes and so cools the wash water. Maker's capacity rating, 6 to 8 lb. Required 15 gal. of hot water (130°) and 9 gal. of cold water for first load; subsequent loads, 1 gal. hot water, 9 gal. of cold for warm rinse. Energy consumption per cycle, 80 watt-hr. Washing effectiveness, good, but very uneven. Effectiveness in drying, fair (water left was 102% of the weight of the dry clothes). Advantages claimed for this machine are faster washing, and saving of hot water and soap. (Time recommended for washing period ranges from 3 min. at 90°F for silks, rayons, nylons, and woollens, to 5-7 min. at 130°F for heavy work clothes.) With more even washing action, if it could be achieved, and a change in design to divert cold rinse water to the drain instead of the tub where it cools off the wash water, machine would, we believe, warrant a *B-Intermediate* rating. Rubber dryer bag stated to be guaranteed for 5 years of ordinary home use. 2

For the convenience of readers of the BULLETIN, we reproduce in highly abbreviated form the listings of automatic washing machines reported in CONSUMERS' RESEARCH BULLETIN of April 1951.

### A. Recommended

*Kenmore, Model 503540* (Sears-Roebuck's retail stores) \$260 with suds-return feature; \$240 without. 2  
*ABC-O-Matic, Model 50* (Altorfer Bros. Co., Peoria, Ill.) \$300. 3  
*Frigidaire, Model WO-65* (Frigidaire Div., General Motors Corp., Dayton, Ohio) \$310. For those to whom the tangling of clothes that occurs in some cases would be objectionable, the rating would be *B. Intermediate*. 3  
*General Electric, Model 1 A W6A8C* (General Electric Co., Bridgeport, Conn.) \$400. 3  
*Whirlpool, Model 501560* (Whirlpool Corp., St. Joseph, Mich.) \$320 (\$340 with suds-saving device). 3

### B. Intermediate

*Westinghouse Laundromat, Model L-5* (Westinghouse Electric Corp., Mansfield, Ohio) \$300. 3

### C. Not Recommended

*Horton, Model 500* (Horton Mfg. Co., Fort Wayne 1, Ind.) \$280. 2

## Off the Editor's Chest

(Continued from page 2)

and news columns have chiefly discussed the need to step-up advertising and to bring back "creative selling" and otherwise intensify sales pressure. The upturn in department store sales in most sections of the country early in February heartened retailers who had been disappointed at the Christmas business, and perhaps vigorous selling techniques will once more part consumers from their hard-earned cash more extensively than in the past few months.

In an era when rigidity of controls, labor con-

tracts, and subsidies of one sort or another all work to prevent prices from finding a normal level, consumers are at a disadvantage, and they have little recourse other than by applying their time-honored technique of refusing to buy. They should, however, not lose sight of the fact that by and large and in the long run production and sales in this country can be kept at a high level only if the consumer is well served or, at the very least, is served with courtesy, attention, and economy, and treated, as he should be, as an essential factor in the nation's economic life.



## Gelatin Desserts and Pie Fillings

**Editor's Note:** In the preceding article, "Phosphates and Phosphoric Acid, Undesirable Food Ingredients," in the March 1952 Consumers' Research Bulletin, we discussed the potentially harmful effects of compounds of phosphorus introduced into the diet artificially through various common food substances in which phosphoric acid or phosphates are now widely used. Some of these foods are gelatin desserts, pie fillings, soda fountain beverages, bottled soft drinks, ready-to-bake mixtures, jellies, and cake and roll mixes. The study led clearly to the conclusion that added phosphate or phosphoric acid is definitely undesirable in foods. A number of harmful effects are produced when the amount of phosphorus taken into the body through foods and beverages is high (unbalanced) in relation to the amount of calcium. Among the undesirable effects are: the imposition of an extra burden on the kidneys; faulty bone formation, and an increased tendency toward rickets in young children; a tendency to anemia, and reduced absorption of iron (a vitally necessary mineral element, particularly for women). Animal experiments showed poor reproductive performance when there was excessive phosphorus in the diet.

**T**HERE IS great personal variation in regard to the individual's reaction to the mineral content of his diet. There may be many persons whose systems correct sufficiently well an imbalance of minerals in the diet that they may not suffer any serious or objectionable effects from additional quantities of phosphorus in their food or beverages. There are others who may show a sensitivity to an intake of phosphorus that is even slightly above normal. Phosphorus is an element that is avail-

able in adequate amounts in various foods consumed by everyone, so that there would not normally be any need for its being taken medicinally or through foods containing extra amounts of phosphorus compounds.

It is a fact that, generally, if the needs of the body for calcium and protein are met through common foods in the diet, the phosphorus that is needed will also be provided, since the common foods that are most effective in supplying calcium

and protein are also the best sources of phosphorus. Natural food sources that are especially high in phosphorus are peas and beans of all types; various cheeses; peanuts, liver, turkey, eggs, fish, nuts, cocoa, and chocolate; and products made of wheat, rye, oats, corn, and rice. Anyone who uses regularly considerable amounts of any of these foods should bear in mind that his phosphorus intake may be rather higher than normal; hence he should exercise more care than ordinary to avoid using foods such as desserts containing phosphates, and bakery goods made with baking powder, and other foods that contain phosphorus in relatively high concentration.

As this study was intended to be a preliminary one, the analyses were not made comprehensive or complete (partly because of the considerations of cost involved); the figures were, however, found to give sufficiently good indication of the characteristics of several products to be a helpful guide to the consumer. Data on a particular sample are not to be considered completely characteristic of a brand because of the variations in composition, as noted, for instance, in the difference in phosphorus content of two samples of *Ann Page* gelatin of different flavors.

Gelatin is nutritionally of very little value, and is very costly for the amount of food value provided, so that it is essentially a luxury food. It is the only protein food that is in fairly wide use whose protein is of a highly incomplete character so that alone it can neither maintain life nor promote growth. (The chief deficiencies of gelatin in respect to the protein amino acids are in tryptophane, valine, and tyrosine.) Gelatin is in wide use as a dessert for children and invalids and also for people who are trying to limit their food intake in order to counteract a tendency to obesity. Experiments purporting to show that drinking large quantities of gelatin in water or fruit juice will materially aid in reducing fatigue and increasing physical prowess are not supported by adequate evidence of scientific investigators.

Fifteen of the 24 desserts tested, mostly those found to have the highest content of phosphate, were assayed for arsenic and lead. CR has for many years advised its subscribers of the harm done by heavy-metal contaminations in foods and beverages, particularly small amounts of arsenic and lead. The action of these poisonous metallic contaminants is cumulative, and they may produce no detectable harm over the short run or even a period of perhaps several years. The average person is exposed to small but continuous amounts of arsenic and lead from the surfaces of fruits and vegetables, certain factory-prepared foods, and many sources other than food and drink, including frequently his water supply. For these reasons, CR has long felt it necessary to urge that no unnecessary intake of these metals should ever be permitted.

They are particularly dangerous to young children and are more harmful to women than to men. For these reasons CR some years ago set up its own tolerances, or contamination limits, for use in its ratings (0.3 parts per million of lead and 0.5 ppm. of arsenic, as arsenic trioxide); we have seen no reason to warrant a change in these. As a matter of fact, the indications are, if anything, that they should be reduced. Phosphate and phosphoric acid as used in foods are likely to be produced from materials, principally phosphate rock or bones, containing in their natural state arsenic, lead, fluorine, and other undesirable mineral substances, and the removal of these is very difficult to effect. Since the phosphate rock and the triple superphosphate used for fertilizing the fields is not purified, it will be seen that a good deal of arsenic, lead, and fluorine may get into the food supply through soils that are fertilized heavily with chemical fertilizers (in some places soils have actually become non-productive because of long-continued spraying or dusting with lead-arsenic compounds used for control of insects affecting crops). Metaphosphates and polyphosphates are also used in the conditioning and softening of water supplies; these may also be sources of undesirable metallic contaminations. The baking powder industry is believed to be the second largest consumer of phosphate rock after the fertilizer industry, and baking powder, as is well known, is a relatively important source of unwanted arsenic, lead, and fluorine in the diet.

In its May 1940 BULLETIN, CR commented, "The most important practical objection to the use of gelatin in any form is that it is an almost certain source of lead and arsenic. . . . it seems . . . undesirable to add needlessly any known source of metallic contamination to the diet."

The wide variations in the chemical findings reported in the concluding part of this article regarding similar products by different manufacturers would seem to indicate a failure to employ a sufficiently tight degree of chemical control in manufacturing processes; in some cases the amount of lead present was surprisingly high, but the fact that some manufacturers were able to keep it at very low levels proved that proper selection of raw materials and due attention by a chemical analyst during the manufacturing process could readily solve the problem. A comparison of *Ann Page* imitation strawberry gelatin and *Jell-O* of the same flavor revealed a comparable amount of phosphate in each product, but there was approximately  $2\frac{1}{2}$  times as much arsenic and lead found in the imitation-strawberry *Jell-O* as in the *Ann Page* imitation-strawberry gelatin. Likewise a comparison of imitation cherry-flavor *Jell-O* and *Royal* gelatin of the same flavor revealed that both products were relatively high in lead, but again the *Jell-O* sample tested contained more arsenic than the similar *Royal* gelatin of the same flavor. As regards phos-

phate content, imitation cherry-flavor *Jell-O* ranked among the highest (0.23%); the amount in imitation cherry-flavor *Royal* gelatin was negligible.

Gelatin dessert powders contain only about 10 percent of gelatin, the rest being about 85 percent sugar and 2 percent tartaric or citric acid and some flavoring matter. As two brands of plain or unflavored gelatin tested by CR have shown relatively small amounts of heavy-metal contamination, as will appear later, it may be that the arsenic and lead that are found in the gelatin dessert powders originate in other ingredients such as the phosphate or the dye. Because the plain gelatin is found to be relatively uncontaminated (and was found so in previous tests by CR), and since the housewife's own flavoring ingredients are less likely to add unfavorable metallic contamination, it would seem that the best course for the housewife to pursue is that which CR recommended several years ago, to buy plain gelatin and flavor it in one's own kitchen to suit one's own individual taste, using fruit juices and other natural flavors, rather than the synthetic flavorings used in manufactured gelatin, and avoiding, too, the use of commercial food dyes, which have in the past been found to be a fairly common potential source of metallic contamination. Some food dyes, too, even though certified as safe for use in foods and beverages, are open to objection as being potentially cancer-causing agents, a fact which has been brought out in recent testimony through the Congressional committee investigating food adulteration in the last few months (though presumably the Food and Drug control over food dyes has provided consumer protection against this hazard, a hazard known to have existed at an earlier period in connection with at least one important food dye — see the article on "Colors for Foods, and Colored Foods" in the June 1945 CONSUMERS' RESEARCH BULLETIN). It is suggested that the housewife mix gelatin desserts in a glass or white-glazed chinaware container for, as our BULLETINS have noted from time to time, there is at least some danger that a significant degree of metallic contamination may be introduced from acid foods prepared or stored in enamelware containers. In making tart desserts, the housewife will do well to avoid fruit juices which are strongly acid; among the natural food substances, lemon juice is particularly bad in its potentialities of harm to the teeth. Investigators have noticed that this juice, often used by persons suffering from rheumatism, or as a laxative, or to prevent colds, or in reducing diets, has caused extensive dissolution of the dental structure, particularly if it is taken daily and at other than mealtimes. (The harmful effect of an acid is, of course, diminished by dilution in eating a meal.) The advertising of *California Sunkist Lemons* is largely responsible for the belief of many persons that lemon juice should be taken regularly for

health. (It seems likely that lemon juice should be used rather sparingly, and in fairly high dilution, as a food ingredient.)

It is to be hoped that some manufacturer will take notice of the situation discussed herein, regarding contamination of prepared gelatin desserts, and will offer a line of dessert gelatin and similar products with respect to which the strictest precautions have been taken to insure protection against metallic and bacterial contaminations. The problem is not an easy one, but it can be gotten under control just as a similar problem was a number of years ago when manufacturers of chocolate and cocoa had difficulties with the occurrence of significant amounts of lead contamination developing during the production and shipment of cocoa beans and during factory processing. At that time the manufacturers succeeded, after careful research, in arriving at an almost complete correction of the difficulty, so that at the present time objectionable contamination of chocolate and cocoa with lead has almost ceased to be a problem, it is said, for Food and Drug administrators.

In connection with the study of the desserts, the test included a rating for palatability by means of a seven-member panel on the basis of three main factors: odor, flavor, and primary taste. This rating covered 22 of the 24 desserts; in two instances (*Junket Sherbet Mix* and *Jell-O Rice Pudding*), flavor ratings are not given because there were not a sufficient number of similar products for comparison. Ratings as to odor were based on trueness and concentration of the odors. Each product was also observed for "off-odors" (such as terpene-like odors due to oxidation of flavors and "artificial-like" odors possessed by certain poor imitation flavors). Some of the products were without noticeable odor, although a slight aroma would have seemed desirable. Flavor, being a mixed sensation of taste, touch, smell, and sight, is a difficult factor to evaluate. The four primary tastes are sweet, bitter, sour, and saline. An effort was made to evaluate each product for the trueness and fullness of the expected primary taste and also for the over-all flavor.

For the purposes of judging the odor, flavor, and primary-taste factors, the pie fillings were prepared with distilled water and not with eggs and/or sugar (as they would be in practice in most cases); this was in order that the original flavor would not be masked by the addition of the flavorful eggs or sugar or both. In this connection it may be noted that *Airline* pie filling, which is ready for use as marketed, ranked near the top as to odor, flavor, and primary taste, and was on a par with imitation cherry-flavor *Jell-O* and lime-flavor *Royal* gelatin. *Sundaettes* (crushed pineapple), which is an ice cream topping, was generally regarded as the most palatable product of the group. Least favored in the flavor, primary taste, and odor ratings were the

following: *Ann Page Sparkle Orange Gelatin*, *Ideal Lime Gelatin*, and *Lem Pie Filling* (lemon). (*Lem Pie Filling* was found to have the highest titratable acidity, calculated as citric acid, of all the products in the group tested.<sup>1</sup>) It must be understood that the scoring in such a study is always influenced by flavor preference, and this should be given consideration by readers, as any given person may possibly find quite palatable a product which others only find moderately so, just as some like the flavor of certain popular bottled soft drinks and others do not find their taste pleasing at all.

The dessert products listed below in the A, B, and C classifications are arranged in relative order of desirability from the standpoint of low phosphate content. Palatability ratings for all products except two already named in the preceding text are designated with the following symbols: superior flavor rating \*\*\*; average flavor rating \*\*; below average flavor rating \*.

All the products except *Grayslake Gelatin*, *Knox Gelatine*, and *Sundaettes Crushed Pineapple* contained artificial color.

#### A. Recommended

*French's Good Luck Lemon Flavor Pie Filling* (Good Luck Food Co., Inc., Rochester, N.Y.) 2 pkg., 17c; \*\*. Ingredients include citric acid and lemon oil<sup>2</sup>.

*Junket Sherbet Mix* (Chr. Hansen's Laboratory, Inc., Little Falls, N. Y.) 2 pkg., 29c. Orange Flavor (not rated for flavor). Contains citric acid.

*Sundaettes* (Distributed by Airline Foods Corp., New York City) Crushed pineapple, 15c each; \*\*\* (see text). Contains citric acid, and benzoate of soda (0.1%).

*Ann Page Sparkle Lemon Flavor Pie Filling* (Distributed by The Great A & P Tea Co., N.Y.C.) 3 pkg., 19c; \*. Contains citric acid and oil of lemon.

*Airline Cherry Pie Filling* (Airline Foods Corp.) 31c each; \*\*\*. Contains synthetic flavor and tartaric acid, and benzoate of soda, a preservative (0.1%).

#### B. Intermediate

The following products were desirable from the standpoint of low phosphate content but they were not further assayed for arsenic and lead; they are thus for the present given a B rating.

*Ann Page Sparkle Orange Flavor Gelatin Dessert*. Orange; 3 pkg., 19c; \*. Contains citric and/or tartaric acid.

<sup>1</sup>As far back as 1937, Professor Clarence A. Mills (Dept. of Experimental Medicine, University of Cincinnati) commented, in an epochal paper on the relation of hardness and acidity of drinking water to tooth decay, on research showing that "the ingestion of certain acids, such as hydrochloric, sulphuric or phosphoric, will cause liberation of calcium from bones and teeth in large amounts, and its excretion in the urine."

In experiments on the dissolving of teeth by acid materials conducted by J. W. Trask, E. E. Ziegler, and E. C. Maloof (Journal of the American Dental Association, July 1940), the dissolution of dental structure increased rapidly with a drop in pH values and the most significant solvent action was found, with one or two exceptions, when the pH was below 4, corresponding to citric, phosphoric, lactic, acetic, tartaric, and oxalic acids. The solutions of all these acids, used in the test by Trask, Ziegler, and Maloof, gave pH values well below 4. All the flavored gelatins and other products (except the *Jell-O Rice Pudding*) in the test had pH values in this range (below 4). The most recent indications are that titratable acidity of the food or beverage is more important than the pH in determining the action of acids on teeth. It has also been noted that the citrate ion is particularly likely to produce damage to teeth. Much more damage has been found to be done by the acid fruit juices than by an equivalent amount of the fruit itself.

*Royal Gelatin Dessert* (Standard Brands, Inc., N.Y.C.)

3 pkg., 25c; Imitation Pineapple Flavor \*: Imit. Raspberry \*\*: Lime \*\*\*. The imitation pineapple product contains citric acid and sodium citrate; the other two contain fumaric acid and sodium citrate. The imitation pineapple and raspberry have artificial flavor.

*Junket Danish Dessert*. Currant-imit. Raspberry, 11c each; \*\*. Contains citric acid and natural raspberry "enhanced with artificial flavor."

*Ideal Gelatin Dessert* (Distributed by American Stores Co., Philadelphia) Lime Flavor; 3 pkg., 19c; \*. Contains citric acid, sodium citrate, and oil of lime.

#### C. Not Recommended

*Lem Pie Filling* (The Morrison Co., Philadelphia 40) Lemon; 2 pkg., 21c; \*. Contains citric acid and/or tartaric acid, lemon oil, edible oil, calcium phosphate.

*Jell-O Rice Pudding* (General Foods Corp., N.Y.C.) 3 pkg., 25c (not rated for flavor). Contains vanilla and artificial flavors and tricalcium phosphate.

*7-Minut Lemon Flavor Pie* (6-O'clock Foods, Inc., Norristown, Pa.) 23c each; \*\*. (This package contained pie-crust mix and filling; only the filling was tested by CR.) Contains citric acid, lemon oil, powdered lemon juice. Pie-crust mix contains baking powder.

*Jell-O Gelatin Dessert*. 3 pkg., 25c; Lemon \*\*: Lime \*.

Contains citric acid, sodium citrate and/or phosphate. *Ann Page Sparkle Gelatin Dessert*. Imit. Raspberry \*\*. Contains citric acid, disodium phosphate, and natural raspberry "enhanced with artificial flavor."

The following products, satisfactory from the standpoint of phosphate and arsenic content, were relatively high in lead.

*Sundaettes*. Crushed Strawberries \*\*. Contains citric acid, and benzoate of soda (0.1%).

*Royal Gelatin Dessert*. Lemon \*\*: Imit. Cherry \*\*. (The gelatin dessert of the imitation cherry flavor was high in lead content; something over 2 ppm. was found on each of two samples.) The lemon product contains citric acid, sodium citrate; the imitation-cherry product contains fumaric acid, sodium citrate, and artificial flavor.

*My-T-Fine Lemon Flavor Pie Filling* (Packed by Penick & Ford, Ltd., Inc., N.Y.C.) 9c each; \*\*. (This product had the highest lead content of all products tested; 4 and 5 ppm. were found on two samples tested.) Contains citric acid, lemon oil.

The following products were undesirably high in both phosphate and lead content.

*Ann Page Sparkle Gelatin Dessert*. Imit. Strawberry \*\*. Contains citric acid, disodium phosphate, and natural strawberry "enhanced with artificial flavor."

*Jell-O Gelatin Dessert*. Imit. Cherry \*\*: Imit. Strawberry \*. (The second-named product was high in lead content; 3 ppm. were found on two samples.)

<sup>2</sup>In view of the recent disclosure by physicians that orange peel oil may cause symptoms of illness in babies, including skin rash, regurgitation and intestinal disturbances, it seems doubtful that even food products for adults should be flavored with a flavoring oil prepared from the peel of lemon, orange, or lime as appears in the ingredients listings on a number of products in the present study (or lemon, orange, or lime extract since extracts are legally made by dissolving the peel oil of lemon, orange, or lime in alcohol). "Flavors" are not the same as extracts. Flavors are prepared with "quick" other than alcohol, but otherwise they have the same origin, in the peel of the fruit.

Both contain citric acid, sodium citrate and/or phosphate, and natural cherry or strawberry "enhanced with artificial flavor."

### Plain (unflavored) Gelatin

#### B. Intermediate

The following two brands of gelatins have been rated only on lead and arsenic content; since both are plain gelatin products, i.e., unflavored, unsweetened, and uncolored, no palatability tests were run on them.

**Knox Unflavored Gelatine** (Charles B. Knox Gelatine Co., Inc., Johnstown, N. Y.) and **Grayslake Gelatin** (unflavored) (Grayslake Gelatin Co., Grayslake, Ill.) These

two unsweetened, unflavored, and uncolored brands of gelatin were tested for arsenic and lead. *Knox Gelatine* (23c each) showed 0.25 ppm. of arsenic and 0.5 ppm. of lead. The *Grayslake Gelatin* (1/4-lb. pkg., 60c) was somewhat better, with only a trace, or less than 0.05 ppm., of arsenic and 0.4 ppm. of lead. The lead in the *Knox Gelatine* was above CR's tolerance of 0.3 ppm., and the arsenic content was safely under the 0.5 limit. *Grayslake Gelatin* was well within the limit on arsenic and a little over the limit on lead. It must be borne in mind, however, that there will be appreciable variations on different samples and these analyses are not to be taken as indicative of the arsenic and lead content that may be found in all samples of plain gelatin now being marketed, which may run higher or lower than the figures given above.

## The Mile-O-Meter and Other Motor Tune-Up Gauges

**M**ANY automobile owners will have been intrigued by the advertisements which have appeared in popular science and news magazines setting forth numerous alleged advantages of the "Mile-O-Meter Miles per Gallon and Motor-Tune-up-Gauge." Over a million of these devices were said to have been sold before mid-November of 1950. An article in *Automotive Digest* for December 1950, referring to the vacuum gauge as a means of checking on engine performance, states, "Its indications will give considerable information about engine condition, but these indications must

be understood and interpreted correctly." This article makes it appear that the vacuum gauge has uses, but the uses claimed by *Mile-O-Meter* are not limited to the uses of a vacuum gauge described in reputable technical sources. The claim of most interest to the average motorist, and without doubt the principal reason why most people have purchased the *Mile-O-Meter*, is that the device is claimed to "show at a glance the miles per gallon of gasoline used at any speed and under all driving conditions." This is a startling claim, and if it were true, the *Mile-O-Meter* would be an ideal in-



Mile-O-Meter Dial



Motor Minder Dial

strument for the use of automobile engineers and others to measure the performance of cars. The *Mile-O-Meter* will not in fact show miles per gallon, nor, indeed, will any simply constructed or inexpensive appliance or accessory now being offered to the public. One accepted method for measuring fuel economy and perhaps the most reliable and accurate means makes use of a system of a small gasoline tank and rubber tubing which is connected into the fuel line to the engine and actually shows by movement of a liquid column in a glass tube the amount of gasoline which has flowed into the carburetor in a given number of miles. This is not an "indicating" instrument but an integrating device, and no simple, inexpensive, and reliable means to give *instantaneous indication of the rate of fuel utilization by the engine at any given moment is known or available*. The fuel-economy measuring device just described, indeed, can give useful results only when the car is traveling at a fixed speed over a measured distance. A true miles-per-gallon meter could be an expensive and intricate device, and be suitable only for application by engineers in laboratory and field test work.

Essentially, the *Mile-O-Meter* is an ordinary *vacuum gauge*, with an elaborately marked and graduated dial which obscures the fact that the instrument is merely a simple and familiar gauge for indicating the relative *vacuum* in the intake manifold to which the gauge is connected. The instrument will give some indication of fuel economy if specially calibrated for a particular car and when that car is operated on a level road. (Under this condition there is a degree of correlation between fuel consumption and the negative pressure in the intake manifold.) As the *Mile-O-Meter* is constructed and graduated, it will give different readings for miles-per-gallon travel for various makes of cars and will be affected also by changes in carburetor and ignition adjustment on any particular car. The best that can be said for the device is that it will give under normal driving conditions rough, *relative* indications of the fuel economy of the car in which it is installed.

The instrument will often give an indication of a change in fuel economy if one pays particular attention to the position of the indicator under various conditions. There is no possible way, however, in which the *Mile-O-Meter* can, without supplemental checking, indicate positively the cause or source of increased fuel consumption.

It should be noted at this point that automobile mechanics and others have long used a vacuum gauge for the general purpose for which the *Mile-O-Meter* is sold, but users have not hitherto been led to suppose that they were really obtaining a continuous, reliable running indication of the gasoline consumption of their car, as implied, for instance, by the manufacturer's claim that the scale reading from 0 to 35 "is the miles-per-gallon

on vehicles of 80 horsepower or over" and can be "read at all speeds under all conditions and all gears." (There is another scale "reading from 0 to 85" which "is the miles per gallon scale for any vehicle under 80 h.p.")

The advertising of the *Mile-O-Meter* is of a kind which is typical of many automotive accessories and the same sort of unrealistic advertising is used for many chemical specialties, oil additives, etc., promoted to automobile owners. Pages of testimonials appear, from all sorts of people, and sales literature is written in a style and with a choice of words which will convince the layman that the manufacturers of the device are acquainted with the technology of automobile engine performance. Most of the claims made in the advertising literature of the *Mile-O-Meter* are considered to be misleading, and some are entirely false. The very name of the device used in the directions for installation, "Motor Condition and Mileage Meter," is, of course, a major misrepresentation. The advertisements lead the casual reader to believe that the instrument indicates actual miles per gallon, which it does not. As a matter of fact, the *Mile-O-Meter* can indicate an improvement in miles-per-gallon performance when fuel economy has actually been decreased by a change in carburetor adjustment. One clear, specific and detailed statement by a well-qualified automotive engineer or a teacher of automobile design in a major university would have been a great deal more convincing than all the testimonials supplied with *Mile-O-Meter* literature, but no report of a controlled test by properly qualified and identified technical experts is given.

## B. Intermediate

*Standard Vacuum Gauge* (Sears-Roebuck's Cat. No. 28—8071) \$3.35, plus postage. Similar to other gauges listed in manner of operation. Instructions for motor tune-up included. Could be mounted on dash with little difficulty and used as continuous vacuum indicator. 1

*Motor Minder* (Stewart-Warner, Instrument Division, 1840 Diversey Parkway, Chicago 14) \$10.95. A vacuum gauge device similar in principle to the *Mile-O-Meter*, but claims are unobjectionable and no claim is made that the meter is an indication of miles per gallon; and there is no miles-per-gallon scale on the dial. 3

## C. Not Recommended

*Gasoline Mileage Gauge* (Sears-Roebuck's Cat. No. 28—2200) \$4.95, plus postage. Claim that "this gauge shows gas mileage at all speeds" clearly misleading. 2

*Mile-O-Meter or Miles per Gallon and Motor Tune-Up Gauge* (Gale Hall Engineering, Inc., Boston 18) \$9.75 and up. Misrepresented in advertising (see text for details). 3

## How-To-Do-It Books — Part II

**Editor's Note:** The article that follows is a continuation of "How-To-Do-It Books" which appeared in the March 1952 Consumers' Research Bulletin. The present article includes books on minor repairs and handcrafts, arts and crafts, hobbies, etc., two books on miscellaneous subject matter, and a group of six low-cost government publications on tools, shop work, carpentry, and care and repair of the house. In future Bulletins, a few other books considered important in this field will be discussed. Subscribers' opinions and experiences regarding books of particular interest to consumers in this and other fields will be welcome.

### Books on Minor Repairs and Handcrafts

#### A. Recommended

**Fix It Yourself**, Popular Science Publishing Co., Inc., New York, 1929, 256 pages, \$1.49. Written by the editorial staff. A fairly practical book describing various repairs to the house and household equipment; some minor construction projects described, such as building chimneys, sidewalks, etc., with concrete, soldering, repairing metal. Less ambitious than some books on the same general subject, but perhaps for that reason less frightening to the average tyro.

**The Home Craftsman's Practical Workshop Guide**, H. J. Hobbs. The Home Craftsman Publishing Corp., New York, 1948, 128 pages, \$1.95. A collection of articles showing various ways of doing things, for the craftsman hobbyist. Illustrations seem adequate. Fairly useful for the gadgeteer; not the sort of material that would be useful to the professional or craft worker.

#### B. Intermediate

**The Woman's Fix-It Book**, Arthur Symons. Greenberg: Publisher, New York, 1949, 246 pages, \$2.95. Describes simple household tools and their use. Some useful information, but not well presented.

#### C. Not Recommended

**The Handy Household Manual**, Jack B. Creamer. Ziff-Davis Publishing Co., Chicago, 1945, 190 pages, \$2. A collection of "household hints." Poorly written, often in an annoying wisecracking style.

**New Home Workshop Encyclopedia**, Popular Science Publishing Co., Inc., New York, 1944, 580 pages, \$3.48. Prepared by the editorial staff of Popular Science Monthly. In no sense an encyclopedia, but a mixture of allegedly "helpful hints," projects for making various gadgets, superficial information on a few useful subjects, a few actually useful articles, but mostly of little value. Not properly termed an encyclopedia.

**Using Tools**, Orlo M. Shultz. University of Florida, Gainesville, Fla., 1943, 122 pages, 40c. Designed for use in elementary schools; not of value for adults.

### Books on Automobile Care and Maintenance

#### A. Recommended

**Everyday Automobile Repairs**, Wm. H. Crouse. McGraw-Hill, 1946, 296 pages, \$3. Excellent explanation of principles of operation of various parts of a car, and of symptoms of trouble. Illustrations good and informative. "Repairs" described are only those of minor nature.

**Car Owner's Guide to Care and Repair**, Walter Altschuler. Tudor Publishing Co., New York, 1947, 126 pages, \$3 cloth, \$1.50 paper. Good and rather well-illustrated book, telling car owner how to keep his car in good order by proper attention, and describing symptoms of trouble. Less well done and less complete than the Crouse book.

#### B. Intermediate

**The Car Owner's Handbook**, Paul D. Green and Ralph Ritchen. Duell, Sloan and Pearce, Inc., New York, 1946, 192 pages, \$2.50. Tells what to look out for, and describes various symptoms of trouble. By no means a "repair" book. Illustrations not very good. A useful book, perhaps, but not in the class with either the Crouse or the Altschuler book.

### Books on "Arts and Crafts," Hobbies, etc.

#### A. Recommended

**Amateur Telescope Making**, Albert G. Ingalls, ed. Fourth ed., 1935, Scientific American Publishing Co., 499 pages, \$5. Written in part by Ingalls, with contributions by several other authors. Complete instructions for grinding, polishing, and testing mirrors for reflecting telescopes of various sizes. Different types of mountings discussed and details of construction given. An excellent book for a real craftsman.

**Amateur Telescope Making Advanced**, Albert G. Ingalls, ed. 1944, Scientific American Publishing Co., 650 pages, \$6. More advanced machine work, optical work, and test methods than given in the first book. The Schmidt optical system is discussed, and design for

a Schmidt camera for astronomical work is shown. Telescope drives, a precision clock, and a chronograph are described. There is some material on refracting telescopes, and description of a riflescope. A section on astronomical observation is included. An excellent book, although it would be too advanced for many amateurs.

**Making Your Own Telescope**, Allyn J. Thompson. Sky Publishing Corp. (Harvard College Observatory), 211 pages (including 2-page bibliography), \$3.50. Well-written and simple directions for practical work on reflecting telescopes. It is based upon work done and instruction given at the telescope-making classes at the Hayden Planetarium in New York City.

## B. Intermediate

**The Amateur's Workshop**, Ian Bradley. Percival Marshall & Co., Ltd., London, 1946, 245 pages. About \$1.50. Description of machine tools: lathe, miller, shaper, grinder, vices. A chapter on power drive lines, power shafts, belting, etc., is out of date as far as practice in this country is concerned — amateur power tools are likely to have separate motor drives. Gives also a list of hand tools, how to sharpen tools, rather good explanation of different procedures. For an English reader this book would be rated *A*, but *B* for an American reader. Equivalent books in the United States illustrate the American-made machinery that the hobbyist is more likely to buy and use.

**Historic Models of Early America**, C. J. Maginley. Harcourt, Brace & Co., 1947, 156 pages, \$2.50. Making models with hand tools. A brief introduction on the use of tools is followed by bills of materials required and instructions for 36 projects. A rather narrow field of interest.

**The Home Crafts Handbook**, Ray E. Haines, ed. Van Nostrand, 1948, 1008 pages, \$6.95. A book written in seven independent sections, each describing a separate "art" or "craft," and each by a member of the teaching staff of New York University Department of Vocational Education. The sections are: Leathercraft; Woodworking Crafts; Metal Arts Crafts; Hand Made Jewelry; Graphic Arts; Plastic Arts Crafts; Basketry and Related Arts. Each section gives what seems like fairly adequate information for the gadgeteer, and projects.

**Metal Art Crafts**, J. G. Miller. Van Nostrand, 1948, 165 pages, \$2.75. This book corresponds to the Metal Art Crafts Section of The Home Crafts Handbook described above. It gives some additional information about metal finishes, and some added information on simple foundry work.

**Hand Made Jewelry**, Louis Wiener. Van Nostrand, 1948, 210 pages, \$2.75. As with the Miller book, this book corresponds to a Section of The Home Crafts Handbook, this time the Jewelry Section. In addition, it includes material on etching and enameling.

**Plastics in the School and Home Workshop**, A. J. Lockrey. Van Nostrand, 1946, 233 pages, \$3.50. A book that shows how to make various gadgets of plastics; also a chapter on slush molding. Considered not very practical.

**Working with Plastics**, Arthur Dunham. McGraw-Hill, 1948, 225 pages, \$3.50. This book contains one

chapter on general information, one on the operations performed on phenolic plastics, and one on operations performed on acrylic plastics. The remainder of the book shows various projects in plastics, such as fancy "costume" jewelry, and the like. Some readers might consider the material rather unimportant.

## C. Not Recommended

**Questions and Answers for the Student Watchmaker**, M. Gonzalez Benitez. Magonbe Globe Co., New York, 1947, 134 pages, \$3. Would not seem to be of much value to anyone who has no previous knowledge of the subject, or has not at least seen a demonstration of a watchmaker's work. Names of parts not fully explained. Also, for example, the book tells how to get a watch "in beat," but does not explain satisfactorily what "in beat" means. It is more like a set of lecture notes than a textbook.

## Miscellaneous

### A. Recommended

**Drake's Cyclopedia of Painting and Decorating**, F. N. Vanderwalker. Fred'k J. Drake & Co., Chicago, 1945, 388 pages, \$3.50. In alphabetical form, but with a fair amount of description of each process. Appears to give rather good coverage, although not in great detail.

### B. Intermediate

**Your Bicycle**, Steve Kraynick. The Manual Arts Press, Peoria, Ill., 1948, 126 pages, \$1.35. A useful book on bicycle care. Of course, the more complex repairs such as building up or respoking a wheel or work on a coaster bike could hardly be done by a boy without an opportunity first to watch someone else do the job.

## Low-Cost Government Publications

### A. Recommended

**Use of Tools**, Basic Navy Training Courses NAVPERS 10623, 258 pages, 65c. Well illustrated and indexed. Covers a wide range of tools, and some of the more important measuring instruments used by mechanics.

**Hand, Measuring, and Power Tools**, War Department Technical Manual 10-590, May 26, 1941, 121 pages, 30c. Well illustrated. Covers somewhat the same ground as *Use of Tools* but includes some description of power tools.

**Shop Work**, War Department Technical Manual 11-453, March 11, 1942, 139 pages, 20c. Covers somewhat the same as *Use of Tools* and *Hand, Measuring, and Power Tools* but also includes woodworking tools, wiring of radio equipment, and cords, and plugs.

**Hand Tools**, Navy Training Courses, Edition of 1944, second printing, 153 pages, 40c. Well illustrated.

**Carpentry**, War Department Technical Manual 5-226, May 6, 1943, 269 pages, 55c. Well illustrated and indexed.

**Care and Repair of the House**, Vincent B. Phelan. Circular 489, National Bureau of Standards, 1950, 209 pages, 50c. Gives clear instructions, in a general way, for the principal jobs required in keeping a house in repair.

## Cracks in Old Paint

**A**DVERTISING would lead the consumer to believe that modern paints of "good quality" do not chip or crack; that they just chalk and erode away evenly leaving a perfect surface for repainting. Unfortunately, while this is the theme in advertising, it is very likely not to be true in practice. Home owners often have difficulty with fine line cracks on the old paint on a wood frame house that show through new paint.

One of CR's consultants suggests that if the surface of old paint has only fine line cracks and has not flaked or scaled significantly, it should be painted with only one good coat of new paint. (This assumes, of course, that the old paint has stood four years or more so that it is ready to be repainted.) Some of the oil from the new paint will be sucked into the cracks in the old paint, if they are fine cracks, and the oil content of the paint immediately over them will be somewhat reduced. That paint may therefore dry flat (without gloss) or it may seem to match the rest of the paint at first but shortly turn flat over the cracks. These little "white lines" in the new paint will not be very unsightly; in fact, they probably will be observable only upon rather close inspection. One may therefore just forget about them. Later on, as the rest of the paint loses its gloss and becomes flat, the lines will disappear. If the cracks are fine, nothing more will be seen of them. Eventually, of course, the new paint will get old and probably will begin to crack, but the new cracks generally will bear no relation to the old ones, except by chance.

If the cracks in the old paint are somewhat wide and open, they probably will become filled with the

new paint and are less likely to show the fine lines of "flatness" in the new paint. They may, however, in time open up through the new paint again when the new paint gets old enough to become brittle. They probably will not open up seriously, however, until it is about time for the new paint to start cracking anyway. Thus it is of no great practical importance whether the new paint cracks in exactly the same places as the old paint or not.

If the new painting is done in two-coat work instead of in the one-coat work which CR's consultants recommend, there is not likely to be any "flatting" of the second new coat over the old cracks. That is one reason why painters are so likely to insist on applying two coats regardless of the condition of the old paint. There is a disadvantage, however, in two coats, and a very important one; namely, that *two coats add unnecessarily to the total thickness of the paint coating over the wood*. As the paint coating increases in thickness, it becomes brittle again faster after each new coat of paint, and it cracks earlier; the cracks are larger, more conspicuous, more likely to curl up at the edges, and more likely to lead to bad scaling. In time, if such a program is long continued, a point is reached at which all old paint must be removed before reliable new painting can be done, and this is a troublesome and expensive process. Every home owner must realize it is to his advantage to postpone as long as possible the process by which the paint coating gets so thick that drastic treatment of the surface must be applied before the next coat of paint can be put on.

## Corrections and Emendations to Consumers' Research Annual Cumulative Bulletin (ACB) and Monthly Bulletins

Recommended  
Assemblies  
Col. 23  
ACB '51-'52

Steam Irons  
Page 9, Col. 2,  
Page 6, Col. 1  
Jan. '52 Bulletin

The correct model number of the preamplifier, listed in line 3, is *GE UPX-003*.

The *Silex DSI* does have a safety valve which is located on the top of the shell directly beneath the handle. The location under the handle would probably afford better protection to the consumer in case the safety valve operates than some other designs.

Electric Food  
Mixers  
Page 11, Col. 1  
Jan. '51 Bulletin

Delete statement that one of the 2 samples of the *Kenmore Model 116 8238* food mixer presented some shock hazard. The leakage current, which amounted to 1 ma., as stated, was found to be unusual, in that it was alternating current at a sufficiently high frequency that it appeared not to involve a hazard of shock to the user.

## Important Discussion of Technical Problem in Electrical Shock Hazard

ANY ENGINEER or other person responsible for the safety of appliances and tools, who is interested in the subject of shock hazard, should read the article Electric Shock published in Engineer's Digest for July-August 1950. The Engineer's Digest is a publication of the U. S. Coast Guard and is not available for general distribution and it is not on the shelves of public libraries. A photostat copy of the article, however, may be obtained from the Photoduplication Service of the Library of Congress at Washington, D. C., at a fee of \$2. In ordering, specify Electric Shock, in Engineer's Digest, July-August 1950 (U. S. Coast Guard), pages 22-31 inclusive.

The particular value of this article over other treatments of the subject is that it indicates the numerous ways in which there may be a shock

hazard existing with appliances and tools where, on the surface, everything appears to be safe. Equivalent circuit diagrams are shown which indicate the peculiar conditions that may occasionally produce a serious or fatal shock even when due precautions seem to have been taken. As such instances occur often and with increasing frequency because of the growing complexity in electrical installations in homes, offices, trailers, and on ships, and in military and naval installations generally, there are many who would find it well worth while to acquire familiarity with the special hazards and the precautions that can be taken. Electrically-driven tools, particularly portable tools, are especially dangerous and few know the safeguards that need to be taken to utilize a power hand tool, for instance, in a way that will eliminate the hazard of shock, so far as is humanly possible.

### Abridged Cumulative Index of Previous 1952 Consumers' Research Bulletins

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# Ratings of Motion Pictures

THIS section aims to give critical consumers a digest of opinion from a wide range of motion picture reviews, including the motion picture trade press, leading newspapers and magazines—some 19 different periodicals in all. The motion picture ratings which follow thus do not represent the judgment of a single person, but are based on an analysis of critics' reviews.

The sources of the reviews are:

Box Office, Cus, Daily News (N.Y.), The Exhibitor, Film Journal, Harrison's Reports, Joint Estimates of Current Motion Pictures, Motion Picture Herald, National Legion of Decency List, Newsweek, New York Herald Tribune, New York Times, Parents' Magazine, Release of the D.A.R. Preview Committee, Reviews and Ratings by the Protestant Motion Picture Council, Time, Times Herald (Washington, D.C.), Variety (weekly), Weekly Guide to Selected Motion Pictures (National Board of Review of Motion Pictures, Inc.).

The figures preceding the title of the picture indicate the number of critics who have been judged to rate the film A (recommended), B (intermediate), or C (not recommended) on its entertainment values.

Audience suitability is indicated by "A" for adults, "Y" for young people (14-18), and "C" for children, at the end of each line.

Descriptive abbreviations are as follows:

adv—adventure  
biog—biography  
c—in color (Technicolor, Cinecolor, Trucolor, Magnacolor, Vitacolor, etc.)  
car—cartoon  
com—comedy  
cri—crime and capture of criminals  
doc—documentary  
dr—drama  
fan—fantasy  
hist—founded on historical incident  
mel—melodrama  
mus—musical  
myst—mystery  
nov—dramatization of a novel  
rom—romance  
sci—science fiction  
soc—social problem drama  
trav—travelogue  
war—dealing with the lives of people in wartime  
wes—western

A	B	C		
—	3	2	Aaron Slick from Punkin Crick	mus-com-c AYC
—	8	6	Across the Wide Missouri	mel-c A
—	2	12	Adventures of Captain Fabian	mel A
1	6	1	African Queen, The	adv-c A
—	5	2	Aladdin and His Lamp	fan-c AYC
9	8	—	American in Paris, An	mus-com-c A
3	13	2	Angels in the Outfield	fan AYC
—	4	10	Anne of the Indies	adv-c A
—	2	8	Another Man's Poison	myst-mel A
—	1	6	Arizona Manhunt	wes AYC
—	—	3	Assassin for Hire	cri-mel A
—	4	2	At Sword's Point	mel-c A
—	—	3	Badman's Gold	wes AYC
—	5	4	Bannerline	soc-dr A
—	6	5	Barefoot Mailman, The	dr-c A
—	6	3	Basketball Fix, The	soc-dr AYC
—	8	8	Behave Yourself	com A
2	4	1	Bend of the River	wes-c AYC
2	7	8	Big Carnival, The	mel-c A
—	5	5	Big Night, The	mel A
—	4	6	Big Trees, The	mel-c A
—	2	1	Bitter Springs	mel AYC
—	2	3	Blackmailed	cri-mel A
3	5	6	Blue Veil, The	dr A
—	3	2	Bonanza Town	mus-wes AYC
—	3	6	Bonnie Prince Charlie	hist-dr-c A
11	1	1	Boots Malone	mel A
—	1	4	Bride of the Gorilla	mel A
—	1	4	Buffalo Bill in Mohawk Territory	wes AYC
—	4	2	Bugles in the Afternoon	mel-c AYC
—	3	3	Bushwackers, The	mel A

A	B	C		
—	—	7	Cage of Gold	myst-mel A
1	10	4	Callaway Went Thataway	com A
—	6	3	Calling Bulldog Drummond	cri-mel AYC
—	3	3	Captive of Billy the Kid	wes AYC
—	—	3	Cattle Queen	wes AYC
—	6	3	Cave of Outlaws	myst-mel-c A
—	1	10	Chain of Circumstance	dr A
—	2	4	Chicago Calling	dr A
4	2	4	Christmas Carol, A	dr AYC
—	2	8	Cimarron Kid, The	wes-c A
1	5	5	Close to My Heart	dr A
—	3	4	Cloudburst	dr A
1	12	2	Clouded Yellow, The	cri-mel A
—	11	5	Come Fill the Cup	dr A
—	1	8	Corky of Gasoline Alley	com AYC
—	1	4	Crazy Over Horses	com A
—	4	7	Criminal Lawyer	cri-mel A
—	7	8	Crosswinds	adv-c A
2	5	4	Cry, the Beloved Country	nov A
—	—	4	Daughter of the Sands	fan A
4	10	3	Day the Earth Stood Still, The	sci A
—	2	1	Days of Our Years	dr A
5	8	3	Death of a Salesman	dr A
5	6	4	Decision Before Dawn	war-dr A
1	10	6	Desert Fox, The	war-dr A
—	4	4	Desert of Lost Men	wes AYC
7	10	—	Detective Story	cri-dr A
—	4	4	Diac Jockey	mus-com AYC
—	8	5	Distant Drums	war-mel-c A
—	6	10	Double Dynamite	com A
—	2	2	Dream of a Cossack	dr-c A
—	3	6	Drums in the Deep South	war-mel-c A
—	3	5	Elephant Stampede	adv AYC
7	10	—	Elopement	com A
—	4	3	Eroica	mus-biog A
—	5	4	Family Secret, The	dr A
—	2	1	Far from Moscow	dr-c A
—	5	1	FBI Girl	cri-mel A
—	—	9	Finders Keepers	cri-com A
—	5	1	First Time, The	com A
1	4	—	Five Fingers	war-mel A
1	4	9	Fixed Bayonets	war-dr A
—	7	5	Flame of Araby	adv-c A
—	4	2	Flaming Feather	mel-c AYC
—	3	3	Flight to Mars	sci-c AYC
—	6	7	For Men Only	propaganda-dr A
—	6	2	Fort Defiance	wes-c A
—	1	4	Fort Dodge Stampede	wes AYC
—	3	1	Fort Osage	wes-c AYC
—	8	1	Galloping Major, The	com A
—	4	6	Girl in Every Port, A	com A
—	6	7	Girl on the Bridge, The	dr A
—	—	3	Gold Raiders	wes A
1	9	5	Golden Girl	mus-dr-c A
—	7	4	Golden Horde, The	adv-c A
—	2	1	Goose Boy, The	dr-c AYC
—	1	3	Great Adventure, The	mel A
11	4	2	Greatest Show on Earth, The	mus-mel-c A
—	7	3	Green Glove, The	cri-mel A
1	4	—	Guest, The	dr AYC
—	2	4	Harem Girl	com A
1	7	—	Harlem Globetrotters, The	dr AYC
—	1	8	Havana Rose	mus-com A
—	2	2	Hawk of Wild River, The	mus-wes AYC
—	3	5	Her Panellied Door	war-dr A
—	9	—	Here Come the Nelsons	com AYC
—	2	3	Highly Dangerous	war-mel AYC
—	6	4	Highwayman, The	adv-c A
—	3	3	Hills of Utah	mus-wes AYC
—	3	5	History of Mr. Polly, The	com A
—	5	2	Honeychille	mus-wes-c AYC

A	B	C		
—	6	2	Hong Kong.....	dr-c AYC
—	6	6	Hot Lead.....	wes A
1	8	6	Hotel Sahara.....	war-com A
—	1	2	House of 1000 Women.....	war-mel A
—	9	5	I Want You.....	war-dr A
—	5	7	I'll Never Forget You.....	dr-c AY
1	11	3	I'll See You in My Dreams.....	mus-com A
—	6	1	Indian Uprising.....	war-mel-c AYC
—	7	4	Invitation.....	dr A
—	7	9	It's a Big Country.....	dr AYC
—	6	7	Japanese War Bride.....	dr A
—	3	2	Joe Palooka in Triple Cross.....	com AYC
—	3	—	Jour de Fete.....	com AYC
—	1	13	Journey Into Light.....	dr A
—	3	6	Jungle Manhunt.....	mel AYC
—	7	1	Jungle of Chang.....	doc-dr AYC
—	6	—	Just This Once.....	com A
—	2	5	Kid from Amarillo, The.....	mus-wes A
1	0	3	Lady from Texas, The.....	wes-c AYC
—	2	8	Lady Pays Off, The.....	com A
—	7	—	Lady Possessed, A.....	dr A
—	1	9	Lady Says No, The.....	com A
—	6	5	Las Vegas Story, The.....	mel A
—	2	1	Latuko.....	doc-c A
—	5	3	Laughter in Paradise.....	com A
1	16	—	Lavender Hill Mob, The.....	cri-com A
—	1	2	Leave It to the Marines.....	war-com AYC
—	5	10	Let's Make It Legal.....	com A
11	5	—	Light Touch, The.....	mel A
—	1	2	Lisbon Story, The.....	mus-mel A
9	3	—	Lone Star.....	hist-mel AYC
5	1	—	Longhorn, The.....	wes AYC
2	3	—	Love Is Better than Ever.....	com A
3	6	—	Love Nest.....	war-com A
—	5	—	Ma Pomme.....	dr A
3	6	—	Magic Carpet, The.....	adv-c AYC
5	1	—	Magic Garden, The.....	fan AYC
1	3	—	Mallia.....	dr A
2	1	—	Man Balt.....	cri-mel A
4	4	—	Man in the Dinghy.....	com A
5	3	—	Man in the Saddle.....	wes-c A
3	—	—	Man in the White Suit, The.....	com AYC
2	3	—	Man on the Run.....	cri-mel A
5	12	—	Man with a Cloak, The.....	mys-mel A
—	4	—	Maniacs on Wheels.....	mel A
4	8	—	Meet Danny Wilson.....	mus-com A
—	5	—	Miners of the Don.....	mus-dr-c A
1	7	5	Miracle in Milan.....	dr A
15	3	—	Mob, The.....	cri-mel A
1	12	4	Model and the Marriage Broker, The.....	com A
—	1	2	Montana Desperado.....	wes AYC
—	1	3	Mr. Lord Says No!.....	com A
12	3	—	Mr. Peek-A-Boo.....	com A
—	3	5	Murder Without Crime.....	dr A
1	10	4	My Favorite Spy.....	mus-com A
1	10	1	Navajo.....	doc-wes AYC
—	2	3	Northwest Territory.....	mel AYC
—	3	9	Obsessed.....	mys-mel A
—	2	7	Oh, Amelia.....	com A
—	1	2	Oklahoma Justice.....	wes AYC
—	3	3	Old West, The.....	wes-c AYC
—	6	9	On Dangerous Ground.....	mel A
—	1	3	Outlaws of Texas.....	wes A
—	2	3	Overland Telegraph.....	wes AYC
—	5	4	Painting the Clouds with Sunshine.....	mus-com-c A
—	2	5	Pals of the Golden West.....	mus-wes AYC
—	9	—	Pardon My French.....	com A
—	6	1	Passion for Life.....	propaganda-dr A
—	4	1	Path of Hope.....	dr A
—	2	4	Pecos River.....	wes AYC
1	9	7	People Against O'Hara, The.....	mel A
1	9	6	Phone Call from a Stranger.....	dr A
—	4	—	Portrait of Clare.....	dr A
—	4	3	Purple Heart Diary.....	mus-war-dr-c AYC
8	6	2	Quo Vadis.....	dr-c AY
—	8	7	Racket, The.....	cri-mel A
1	5	2	Raging Tide, The.....	cri-mel A
—	5	1	Rancho Notorious.....	mus-wes-c A
4	4	4	Rashomon.....	dr A
—	6	3	Red Mountain.....	wes-c A
A	B	C		
—	5	1	Red Skies of Montana.....	mel-c AYC
—	1	5	Reluctant Widow, The.....	adv A
—	6	2	Retreat, Hell!.....	war-dr AY
—	5	3	Return of the Texan.....	dr AYC
—	5	3	Reunion in Reno.....	soc-dr A
5	7	5	River, The.....	dr-c A
—	2	1	Road Agent.....	wes AYC
—	3	—	Roaring City.....	dr A
4	10	3	Room for One More.....	dr A
1	2	1	Royal Journey.....	doc-c AYC
—	10	4	Sailor Beware.....	com A
2	13	3	Saturday's Hero.....	dr A
—	5	8	Scandal Sheet.....	cri-mel A
—	3	—	Scarred.....	mel A
—	4	4	Sea Hornet, The.....	mys-mel A
—	5	3	Sellout, The.....	cri-mel A
—	3	5	Shadow in the Sky.....	dr A
—	5	5	Silver City.....	mel-c A
—	4	—	Simple Case of Money, A.....	com A
1	1	2	Singing Angels.....	mus-dr A
—	3	1	Ski Champs.....	doc-c AYC
—	5	2	Slaughter Trail.....	mus-wes-c AYC
—	2	3	Small Back Room, The.....	dr A
—	2	2	Smoky Canyon.....	wes AYC
—	2	3	Something to Live For.....	soc-dr A
—	2	5	Son of Dr. Jekyll, The.....	mys-mel A
—	2	1	Song of Dolores.....	mus-dr A
—	2	6	South of Caliente.....	mus-wes AYC
—	2	1	St. Matthew Passion.....	mus-doc AYC
—	3	—	Stagecoach Driver.....	wes AYC
7	6	—	Starlift.....	mus-com AYC
—	2	2	Steel Fist, The.....	mys-mel A
—	7	3	Storm Over Tibet.....	adv A
—	3	—	Stormbound.....	mel A
—	6	9	Storm Door, The.....	mel A
—	9	6	Submarine Command.....	war-dr A
—	3	7	Sunny Side of the Street.....	mus-com-c AYC
—	2	1	Superman Meets the Mole-Man.....	fan AYC
—	2	1	Tale of Five Women, A.....	dr A
—	1	2	Tales of Robin Hood.....	adv AYC
—	7	6	Tanks Are Coming, The.....	war-dr AYC
—	7	1	Tembo.....	trav-c A
—	11	3	Ten Tall Men.....	war-dr-c A
—	11	3	Texas Carnival.....	mus-com-c A
—	1	2	Texas Lawmen.....	wes AYC
4	4	1	This Is Korea.....	war-doc-c AYC
—	3	5	This Woman Is Dangerous.....	cri-mel A
—	4	—	Toast to Love, A.....	dr A
—	10	5	Tom Brown's Schooldays.....	dr AYC
—	5	11	Tomorrow is Another Day.....	cri-mel A
—	12	5	Too Young to Kiss.....	mus-com AYC
—	2	2	Trail Guide.....	wes AYC
—	3	3	Treasure of Lost Canyon, The.....	mel-c AYC
—	4	3	Two Dollar Better.....	dr A
—	2	1	Two Pennies' Worth of Violets.....	mus-com-c A
2	8	6	Two Tickets to Broadway.....	dr A
—	2	6	Under the Olive Tree.....	dr A
—	6	8	Unknown Man, The.....	mel A
—	2	2	Unknown World.....	sci AYC
—	4	1	Utah Wagon Train.....	mus-wes AYC
—	3	3	Valley of Fire.....	mus-wes-c AYC
—	1	2	Vanishing Outpost, The.....	wes AYC
2	5	5	Viva Zapata!.....	hist-dr A
—	4	—	Volcano.....	dr A
—	10	2	Weekend with Father.....	com AYC
—	4	8	Well, The.....	soc-dr A
2	9	6	Westward the Women.....	wes A
—	8	9	When Worlds Collide.....	sci-c A
—	3	5	Whip Hand, The.....	mel AYC
—	1	2	Whistling Hills.....	wes AYC
—	3	—	White Hell of Pitz-Palu, The.....	dr A
—	4	10	Wild Blue Yonder, The.....	war-dr AY
—	6	1	Wild North, The.....	mel-c A
—	3	—	With a Song in My Heart.....	mus-dr A
—	6	2	Woman in Question, The.....	cri-mel A
—	6	—	Woman in the Dark.....	cri-mel A
—	4	4	Wonder Boy.....	dr AYC
—	7	3	Wooden Horse, The.....	war-mel A
—	1	3	Yellow Fin.....	dr A
—	7	3	You Never Can Tell.....	fan AYC
—	4	7	Young Scarface.....	cri-dr A

# The Consumers' Observation Post

(Continued from page 4)

THE THRIFTY PERSON who wishes to renovate last year's spring coat or jacket by having it dyed another color will need to take into account some added costs in addition to the actual charge for dyeing. As a rule, new buttons will be required and frequently alterations will need to be made. Shoulder pads are likely to become lumpy or matted in the dyeing process. The lining of the coat may shrink or stretch, or otherwise not fit because the outer fabric has shrunk in dyeing. Those who wish to locate a responsible dyeing establishment in their vicinity will be able to secure suggestions from the National Institute of Cleaning and Dyeing, 8001 Georgia Ave., Silver Spring, Md. One company that is known for the quality of its work is the Loebl Dye Works, Inc., 346-348 W. Salem Ave., Roanoke, Va. This company will handle work by mail, and will give an estimate on a dyeing job if one is requested.

\* \* \*

REDUCING EXCESS POUNDAGE in some particular area of the body has always had an appeal for certain individuals, and many devices have been sold for such a purpose. Recently the Council on Physical Medicine and Rehabilitation of the American Medical Association issued a report on Hollywood Vita-Rol, a "slenderizing" device of this type, resembling a large rolling pin with an electric light cord at one end which supplied current for a heating element within. Besides using the device, a reduced-calorie diet was to be followed by those desiring to take off weight. The Council found, however, that the temperature control of the Hollywood Vita-Rol was unsatisfactory, and there was no evidence that it would roll off fat. It was not even considered worthy of recommendation as a means of massaging and warming the body.

\* \* \*

INSECT STINGS sometimes produce severe reactions and in rare cases have even been fatal. As a rule, the application of household ammonia or a wet pack made with sodium bicarbonate will alleviate the itching, but ointments containing one of the antihistaminics have proved to be excellent remedies and

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frequently bring relief within a few minutes after application, advises Dr. T. R. Van Dellen, medical columnist.

\* \* \*

PROTEIN STARVATION is found more frequently in elderly people than any other type of dietary deficiency, according to Dr. Edward J. Stieglitz of Washington, D. C., in Nutritional Observatory. Mild deficiencies, he points out, may be indicated by a feeling of habitual fatigue. Since he finds that the majority of older people dislike milk as a source of extra protein, they will need to step up their intake of cheese and lean meat.

\* \* \*

WRINKLE-RESISTANT FINISHES applied to cotton, linen, and rayon fabrics have some value in preventing excessive wrinkling and mussing. According to Marie Antoinette Falcone, writing in Rayon and Synthetic Textiles, the results from the use of these preparations are not as yet equal to the natural resilience, bounce, and springiness of silk and wool, but they represent an improvement over the performance of untreated fabrics. Some finishes last longer than others, and it is important to avoid the use of bleaches in washing fabrics treated with a resin finish, advises Miss Falcone. Otherwise there may be discoloration, and possible deterioration of the fabric.

\* \* \*

HORMONE CREAMS and other cosmetics containing estrogenic hormones may produce undesirable effects under certain circumstances and should not be made available to consumers except on a doctor's prescription. That was the salient point made by Dr. A. E. Rakoff, Clinical Professor of Obstetric and Gynecologic Endocrinology, Jefferson Medical College, in testimony before the House Select Committee on Chemicals in Foods and Cosmetics. Dr. Rakoff pointed out that it is well established that estrogens are absorbed through the skin and thus can produce effects on various parts of the body. Long-continued administration of small amounts of hormones, for example, may produce undesirable functional disturbances in postmenopausal women. In patients who have fibroid tumors, estrogens may stimulate more rapid growth of the tumors. On the subject of hormone cosmetics, Dr. Rakoff further commented that it would be difficult to find reliable data indicating that these expensive products do any good.

\* \* \*

INEXPENSIVE PLANTS in garden catalogs that are marked to be shipped "Express Collect" may turn out to be costly, warns a CR subscriber. He discovered to his sorrow that a dollar's worth of plants required an additional charge of \$1.50 in express fees when they were delivered to his door and that brought the cost of the plants to prices higher than those prevailing in a near-by plant specialty store for the same items.

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# Phonograph Records

BY WALTER F. GRUENINGER

Please Note: In the ratings AA indicates highly recommended; A, recommended; B, intermediate; C, not recommended. Although nearly all new releases of serious music are heard, space narrows comment, generally, to items which merit high ratings.

**Bach: Goldberg Variations.** Rosalyn Tureck (piano). 4 sides, Allegro ALG 3033. \$11.90. Monumental work written for harpsichord — aria and 30 variations. Miss Tureck's piano playing is sensitive, clean. Rather well recorded (probably in a small room) except for an occasional pitch waver.

**Interpretation AA**  
**Fidelity of Recording A**

**Beethoven: Quartet No. 15 (Op. 132).** Paganini Quartet. RCA Victor LM 1179. \$5.72. One of the superb last quartets. Good performance, though a little rough, and fine recording.

**Interpretation A**  
**Fidelity of Recording AA**

**Beethoven: Serenade (Op. 25), Baker, Joseph, and Lillian Fuchs (flute, violin, viola) & Trio (Op. 9, No. 3), Joseph, Lillian, and Harry Fuchs (violin, viola, cello).** Decca DL 9574. \$5.85. Engaging chamber works played with zest. Recorded as though in a large hall, imparting an orchestral quality.

**Interpretation AA**  
**Fidelity of Recording AA**

**Debussy: Three Images for Orchestra.** San Francisco Symphony Orchestra under Monteux. RCA Victor LM 1197. \$5.45. An impressionist's view of French, Scotch, and Spanish scenes. Straightforward performance. Fairly good recording, lacking bass.

**Interpretation A**  
**Fidelity of Recording A**

**Grieg: Sonatas Nos. 1 and 3.** Fuchs and Sheridan (violin and piano). Decca DL 9571. \$5.85. The first is a pulsating, uneven, youthful work whereas the third ranks among the top sonatas by the "smaller" masters. Both players are excellent musicians and the ensemble is effective. Bright, resonant recording but some piano pitch wobble.

**Interpretation AA**  
**Fidelity of Recording A**

**Grieg Songs.** Flagstad (soprano). RCA Victor LM 99. \$4.67. Some of Grieg's most expressive work is offered in these six songs sung with remarkable beauty and simplicity against an orchestral background.

**Interpretation AA**  
**Fidelity of Recording AA**

**Honegger: King David.** Micheau, Collard, Mullet, Hervé, Chorus, Orchestra under the Composer. 4 sides, Westminster WAL 204. \$11.90. An elaborate oratorio sung occasionally in our country. In addition to soloists, chorus, and orchestra it employs a narrator who explains the action in French. In a booklet, the English translation is provided. Obviously the competent cast is carefully trained so the production comes off well. Good, reverberant recording except for some distortion in loudest choral and orchestral passages.

**Interpretation AA**  
**Fidelity of Recording A**

**Mozart: Sinfonia Concertante in E Flat (K364).** Joseph and Lillian Fuchs (violin and viola) with the Zimmler Sinfonietta. Decca DL 9596. \$5.85. Mozart at his very best. Performance, extraordinarily good. Recorded as from a distance, with one microphone.

**Interpretation AA**  
**Fidelity of Recording AA**

**Mozart: Six Quartets Dedicated to Haydn.** Roth String Quartet. 6 sides, Mercury MGL 8. \$9.70. Rich works, Mozart's finest quartets. Dependable though not wonderful playing. Wide range recording but the balance favors the first violin. Some surface sputtering.

**Interpretation B**  
**Fidelity of Recording A**

**Puccini: Tosca.** Dall'Argine, Scattolini, Colombo, etc., under Quadri. 6 sides, Westminster WAL 302. \$18.50. Thrilling, gory opera, Puccini's third success. The cast is not distinguished though it is certainly competent. Loud singing prevails rather than subtle singing. Direction is lively and the recording first rate, though voices occasionally overshadow the orchestra.

**Interpretation A**  
**Fidelity of Recording AA**

**Rachmaninoff: Symphony No. 1.** Stockholm Radio Symphony Orchestra under Rachmilovich. Mercury MG 10111. \$4.85. Signs of the later symphonies are clearly in evidence here, though the work was composed when Rachmaninoff was 22. Well played and acceptably recorded.

**Interpretation AA**  
**Fidelity of Recording B**

**Schubert: Die Winterreise.** Victor Carne (tenor). 4 sides, Westminster WL 5087-88. \$11.90. Some of Schubert's choice work appears in this sorrowful cycle of 24 songs. Carne sings with commendable taste and a fresh voice but he lacks depth and nuance. Well recorded except for a slight pitch waver noticeable, at times, in the piano accompaniment.

**Interpretation B**  
**Fidelity of Recording AA**

**Schumann: Symphony No. 2.** Stokowski and His Symphony Orchestra. RCA Victor LM 1194. \$5.45. Very likely Schumann's best symphony. Robust, slightly muffled recording and energetic, sound performance.

**Interpretation AA**  
**Fidelity of Recording A**

**Tchaikovsky: Piano Concerto No. 3 & Concert-Fantasia for Piano and Orchestra.** Mewton Wood (piano) with the Westminster Symphony Orchestra under Goehr. Concert Hall Society 1126. \$5.95. The "concerto" is really a one movement *Allegro Brillante* and the *Fantasia* an extended three movement, melodic showpiece. Both are expertly played and, with the exception of a little flutter, well recorded.

**Interpretation AA**  
**Fidelity of Recording A**

## OTHER LP'S HIGHLY RECOMMENDED (for Interpretation and for fidelity)

DECCA — **Sullivan: Pineapple Poll Ballet Suite.** Royal Opera House Orchestra under Lanchbery on DL 7521. **Leroy Anderson Conducts His Own Compositions.** Vol. 2. Leroy Anderson Pops Concert Orchestra on DL 7519.

RCA VICTOR — **Bach: Well-Tempered Clavier, Book 2.** *Preludes and Fugues*, Nos. 1 to 8. Landowska (harpsichord). LM 1152.

WESTMINSTER — **Mozart: Divertimenti**, Nos. 8, 12, 13, 14, for 2 oboes, 2 horns, 2 bassoons. Mayerhofer, Von Freiberg, Kainz, etc. WL 5103.

VANGUARD — **Mahler: Early Songs from Des Knaben Wunderhorn & Last Songs from Ruckert.** Poel (baritone) and Felbermayer (soprano). VRS 421.

**Shostakovich: Song of the Forests.** Combined Choirs and State Orchestra of the USSR under Mravinsky. VRS 422

